

# Helping Your Child Learn

4-7



## Helping Your Child Learn: An Introduction

This booklet offers suggestions for how parents and teachers can work together to help students succeed in the intermediate grades, from Grade 4 to 7. We hope the tips and information here will help your child achieve success.

# HELPING YOUR CHILD LEARN: GRADE 4–7

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# 1 | Your Child's Learning: What You Can Do to Help

## Three Ways Parents and Families Can Make a Difference in the School Experience

Parents are children's first teachers. Research says that children are successful in school when parents, families and teachers work together as active partners in children's education.

### Share information about your child with the teacher

- > Teachers can gain insight into the unique needs of your child by learning some of the details about your child's personality, such as whether your child likes hockey, is afraid of spiders, likes role-playing, or has a new step-sibling or a rock collection. It is helpful for teachers to know that there are many books at home, or that your child tells you he or she cannot understand fractions.
- > Children often behave differently at school than they do at home. You can gain insight into your child as a student when teachers describe what your child is like in school and what makes the classroom unique.

### Get to know your child's teacher

- > Introduce yourself to your child's teacher at the beginning of the year. To contact them, leave messages at the school office, send a note or go into the class after hours to make an appointment. Ask what you can do to support your child's learning.
- > Parents of students with special needs or designations have important information about their child to share with the school. It is vital that you share this information at the beginning of each school year and as needed throughout the year.

### Volunteer to help out in the school

- > If you have a special skill or interest (e.g., geology, cooking or mechanics), ask how you can help with a classroom or school topic.
- > Ask your school principal, school planning council or parent advisory council about volunteering in the school. Being at the school gives you a better understanding of how your school operates and is a great way to meet other parents

# 2 | Learning Standards

## What Are Grades 4 to 7 Students Like?

Every child is unique. In the intermediate grades, children change socially, emotionally, physically, artistically and intellectually. Although children develop at their own rates, parents and teachers see consistent patterns of development as children move from Grade 4 to 7.

## Students in Grade 4

Grade 4 students are enthusiastic about learning and about moving up to the intermediate world. They enjoy the grown-up look of duotangs, binders, textbooks and the intermediate classroom. They work energetically and can focus on complex assignments for longer periods. Grade 4 students are eager to please and want to succeed. They take the responsibility of being a “Big Buddy” to a primary child very seriously.

Students at this age feel empowered as they make the connection between personal effort and achievement. Most children tackle the challenges of homework, letter grades and due dates with pride. They are more confident about forming, expressing and explaining their opinions. As the year progresses, boys and girls mature and mix in a variety of social and academic activities. They are often enthusiastic about socializing and are more curious about the opposite sex. They look forward to participating in a broadening range of group activities such as team sports, track and field, intermediate choirs, drama events and clubs.

## Students in Grade 5

Grade 5 students are willing to take more risks in school. They can read between the lines and enjoy humour in the stories they read. They are empathetic and have a strong sense of justice, especially when they feel they have been treated unfairly. They think about global issues and begin to see that there is a bigger world outside their own lives. Although they still seek parental approval at home, they are more independent at school. Some students at this age rebel against authority. Children in Grade 5 explore different social connections and examine their own identities. “The group” becomes extremely important. They are very aware of their bodies, develop fashion consciousness and pay more attention to personal appearance. Many want to be trendy and wear brand-name clothing. The media have a strong influence on their body image, topics of conversation and how they spend their free time.

Some children at this stage become self-conscious and nervous about speaking in front of the class. Students at this age want to be like their classmates; individual differences can lead to conflict or exclusion. Girls tend to mature earlier and become more aware of gender differences.

## Students in Grade 6

Children change enormously during their Grade 6 year. They are more self-confident, socially responsible and independent from their parents. Cognitive growth is gradual, but changes in their thinking and learning are evident. Grade 6 students are increasingly able to work with abstract images and consider more than one idea at a time. They can plan and carry out the steps required for their own learning.

Grade 6 students can be intensely emotional, with unexpected periods of moodiness or hyperactivity. There can be a marked difference between boys and girls, but children of either sex may appear calm and at peace with themselves one moment and angry or sad the next. Their emotions are close to the surface, and they are sensitive to criticism from peers and adults. Feelings of success or failure are critical to their self-image. They hide their feelings of anxiety and try to act confident.

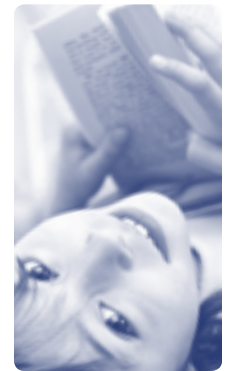
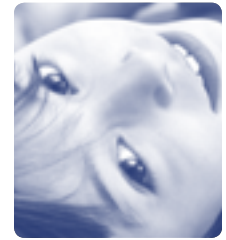
The search for personal identity and peer acceptance affects many Grade 6 students. Friendships can change and loyalties can shift very quickly as children struggle for acceptance. This year is also characterized by surges of physical growth and reproductive maturity. Grade 6 students are typically more concerned about appearance, body image and personal grooming than about the nutritional needs of their rapidly changing bodies.



## Students in Grade 7

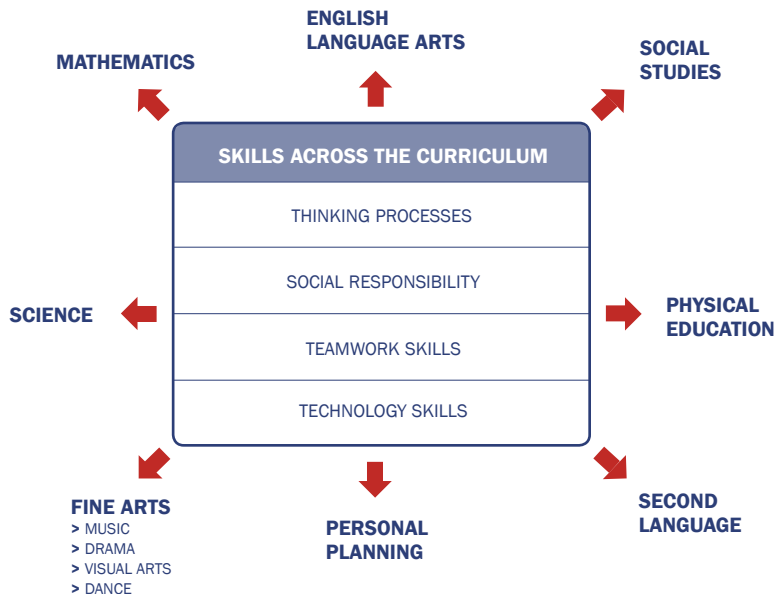
Throughout Grade 7, a typical student will go through many physical and emotional changes. For some, the hormonal and physical changes create emotional difficulties. Others feel that their development lags behind that of their peers. Boy-girl relationships are being explored, and many students care more about the social aspects of school than the academic ones.

A shift in friendships may also occur. Strong friendships may continue while others break down. Students are better able to recognize and acknowledge their strengths and weaknesses and advocate for themselves. They may take a leadership role in the school and show more independence. Grade 7 students want to be viewed as mature, yet the child in them is still obvious. The average Grade 7 student reads confidently and for pleasure, and selects reading material based on personal interest. Some students feel anxious about attending high school, although they may not admit it. Despite this anxiety, many students are ready to make the move and look forward to greater independence in Grade 8.



## A Look at All Subjects

Some skills are part of every subject from Grade 1 to 12. These are the skills people need to succeed in school, in post-secondary learning and throughout life. These skills include the thinking processes, social responsibility, teamwork and the use of technology.



## Thinking processes

In all subject areas, students develop, apply and refine a variety of thinking processes, such as critical, creative and reflective thinking, decision-making and problem-solving. Regardless of the content, students explore, choose, analyse, question, debate, evaluate, imagine, apply, explain and justify ideas. Intellectual development takes many forms.



## **Social responsibility**

Students are expected to act and think responsibly. Parents and teachers want them to contribute to the classroom and school community, solve problems in a socially acceptable way, respect diversity and defend human and democratic rights in age-appropriate ways. For example, in grades 4 and 5, students should be able to manage their anger, treat others fairly and respectfully and show a growing sense of responsibility. In grades 6 and 7, children are expected to be empathetic, consider others' views and care about correcting injustices.

## **Teamwork skills**

The ability to co-operate with others is important in school, at home, in the community and in the workplace. Teamwork skills include contributing to the goals of the group, planning and making decisions with others, respecting the ideas of others in the group, compromising (exercising give and take) to achieve consensus, and, when appropriate, taking a leadership role. Students learn and practise teamwork skills in all subject areas.

## **Technology skills**

The ability to use computers, the Internet and other technology is essential for success in school and in the workplace, for further learning and for recreation. Students use print and electronic resources to gather, organize and present information in many subject areas. Students use technology to find and work with information, as well as to present their learning in different ways (e.g., a slide show, a newspaper created using a computer template, or a PowerPoint presentation using a multi-media projector). Issues of computer etiquette (such as sound level or personal work) and ethics (such as appropriate websites, plagiarism or downloading) are increasingly important during the intermediate years.

# **English Language Arts Learning Standards**

## **From Grade 4 to7**

The English language arts curriculum in grades 4 to 7 develops students' abilities to communicate (i.e., speak, listen, read and write). Communication skills are important foundations for learning in school and functioning in society. Students read a variety of printed material, including simple chapter books (often with illustrations), novels, poetry, newspapers, plays, magazines, recipes, directions, maps, menus, graphs, reference books, articles, reports, charts, brochures, almanacs, encyclopedias and websites. They interpret their reading in different ways:

- > creatively (i.e., by building a diorama showing a novel setting, or by creating and performing a play about the selection);
- > critically (i.e., by constructing a Venn diagram to show how they and the characters are alike and different);
- > reflectively (i.e., by thinking of a time when they were in similar circumstances and writing a poem about their feelings).

Students write in a variety of formats for different purposes, including journals, stories, poems, folktales, legends, reports, instructions, charts and Web pages. They use the steps of the writing process when they write (i.e., they brainstorm, draft, proofread, edit, publish and present).

Students apply skills they learn in English language arts to other subject areas. On any given day, students might speak about a current event, listen to instructions in mathematics, read about ancient cultures in social studies and write their findings about a science experiment.

## Grade 4 English Language Arts

### Reading

Grade 4 students love to show their independence in reading. At this stage, students progress from early chapter books (with pictures) to novels with smaller print. They explore a variety of materials to expand their reading skills, including novels, poetry, newspapers, videos, magazines, recipes, directions, maps, menus, graphs, dictionaries and Internet sources. Students in Grade 4 can find facts presented in fiction and non-fiction materials. They can make inferences (i.e., read between the lines). In this year, students identify the parts of publications (e.g., table of contents, glossary, index and headings). They read for fun, at or below their grade level.

### Writing

Students in Grade 4 write in a variety of formats, including stories, poems, journals, reports, letters and instructions. Students learn the steps involved in the writing process. They produce drafts, edit, revise and present their work. At this stage, students expand their vocabulary and choose descriptive, creative words. Students show a growing control (i.e., understanding and accuracy) of the written language, including the proper use of punctuation, capitals and correct spelling (i.e., the conventions of the language). The mistakes they make at this stage do not generally affect the meaning. Grade 4 students can organize their thoughts and ideas into complete sentences and meaningful paragraphs. Their stories have a beginning, middle and end, although they are often not fully developed.

## Grade 5 English Language Arts

### Reading

Grade 5 students read and respond to a variety of age-appropriate materials, including novels, stories, non-fiction, poetry, brochures, newspapers, almanacs, encyclopedias, magazines and Internet sources. They are beginning to read more critically, will choose a favourite author and often enjoy non-fiction. Students in Grade 5 use a dictionary, thesaurus, table of contents, glossary, index and headings to support their reading and writing.

### Writing

Students in Grade 5 write stories, poems, journals, reports, charts, Web pages and story maps. They apply basic rules of writing and speaking in their written and oral presentations. They use the steps of the writing process to generate and shape ideas for specific purposes. By Grade 5, students' writing is becoming well organized. Their sentences are becoming complex, and they usually use the conventions of language correctly. They can develop a logical sequence of events into ordered paragraphs with a clear ending. They proofread and edit written work with their peers.

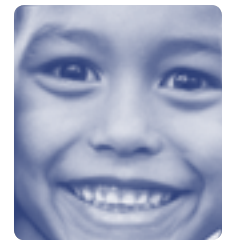
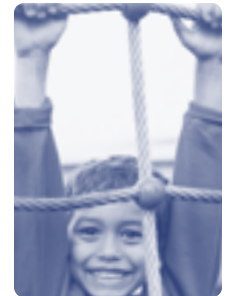
## Grade 6 English Language Arts

### Reading

Grade 6 students build their comprehension skills by reading novels, poetry and short stories. They also read newspapers and websites for information. They use a range of strategies to understand point of view, character, cause and effect, and problem resolution. Students at this stage connect themes from literature with their own personal experience. They can describe main ideas and supporting details in their own words. Grade 6 students often read for enjoyment during their leisure time.

### Writing

Students in Grade 6 write a range of literary forms, including short stories, fables, folktales, legends, poems, reports and articles. Using the steps in the writing process, they personalize their writing to reflect their individuality. Their essay writing is more coherent and logical. The paragraphs can be identified as introduction, development and conclusion. Grade 6 students collaborate with peers to edit and revise writing. They use diagrams, headings and illustrations in their informational pieces; they also apply grammatical rules and other conventions. Grade 6 students gather ideas on a theme or topic, reflect on those ideas and write a finished report or article that has been edited to flow logically.



## Grade 7 English Language Arts

### Reading

Students in Grade 7 study poetry, novels, short stories and the media. Both orally and in writing, they respond to what they have read by providing relevant details, restating main ideas in their own words, and inferring meaning. They skim for information. They also present opinions supported by evidence, connect ideas and identify themes. Their reading material is increasingly complex, with more specialized vocabulary. Students in Grade 7 often read in their leisure time.

### Writing

Grade 7 students demonstrate their understanding of various literary forms by writing editorials, resumes, short stories, fables, folktales, legends, poems, reports and articles. Students automatically use the steps of the writing process. Their writing is more sophisticated in terms of structure, vocabulary, purpose and reasoning. They are adept at the three-paragraph essay and can develop their ideas fully, using description, examples, dialogue, narration and quotations.

#### DID YOU KNOW?

THAT PARENTS ARE NOW PART OF PLANNING COUNCILS THAT ENSURE STUDENTS' NEEDS ARE IDENTIFIED AND CLEAR GOALS ARE SET FOR IMPROVEMENT?

#### DID YOU KNOW?

THAT THE FIRST PUBLIC SCHOOL IN B.C. OPENED IN 1852 IN FORT VICTORIA WITH 18 STUDENTS?

## Math Learning Standards

### From Grade 4 to 7

Math is an important foundation for all learning in school and for functioning in today's society. The math curriculum in grades 4 to 7 is designed to develop students' abilities to:

- > deal with numbers and measures confidently and competently;
- > compute on paper, in their heads and by using technology;
- > estimate and solve mathematical problems;
- > understand how information is gathered (e.g., by counting and measuring) and how it is presented in graphs, diagrams, charts and tables.

Students learn about and solve problems involving:

- > whole numbers, fractions, decimal fractions and integers;
- > ratios, variables, algebra and equations;
- > measurement, geometry, volume and two-dimensional and three-dimensional shapes;
- > data collection, analysis, prediction and graphing.

Math is developmental and sequential — i.e., each year's skills build on those learned the year before. For students to succeed, ongoing practice and review is important. This is especially true over the summer, when school is not in session.

### Grade 4 Math

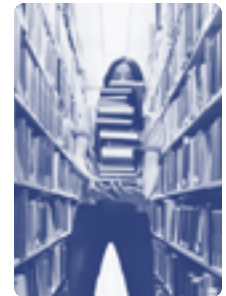
- > Students in Grade 4 begin to realize there is more than one possible solution to a problem. They work with numbers as large as 10,000. They read, write, compare, order (greater than, less than), estimate (place value) and add and subtract whole numbers. As well as the basic addition and subtraction facts (up to 20), which they learned in the primary years, they now need to know their multiplication and division facts up to 100. Students multiply larger numbers (three-digit by one-digit) and divide larger numbers (two-digit by one-digit).



- > Students continue to learn about proper fractions (e.g.,  $1/2$ ). They add tenths and hundredths and make the transition to decimals (e.g., 0.1, 0.01). Money skills are often related to decimals (e.g., cents, dimes).
- > Grade 4 students switch from primary to intermediate rulers that are marked in millimetres. Students estimate, measure, record, compare and order objects by length, height, perimeter and circumference, using standard units (e.g., millimetres, centimetres, metres, kilometres and millilitres). Students describe the relationship between grams and kilograms, and solve problems using these units. Money skills at this age involve estimating, counting, recording and making change up to \$100.
- > Students in Grade 4 may use calculators to solve problems or explore numbers. They are expected to estimate and calculate accurately. Many students use computer resources (software and Internet sources) to practise math skills.
- > Students are able to name geometric shapes such as parallelograms and trapezoids. Students create three-dimensional models of pyramids and prisms. They learn to find right angles as part of squares, rectangles or some triangles.
- > Students design and conduct simple probability experiments to learn about the possible, impossible, certain and uncertain outcomes of chance. They graph and compare outcomes in a variety of ways. They ask questions, find answers and reflect on the process.

## Grade 5 Math

- > Students in Grade 5 work with numbers as large as 100,000. They read, write, compare, order (greater than, less than), estimate (place value), add and subtract whole numbers. They easily use the addition, subtraction, multiplication and division facts learned in earlier years. Students multiply three-digit by two-digit numbers and use long division for three-digit by one-digit numbers.
- > Students learn to multiply and divide proper fractions (e.g.,  $1/2$ ) and decimals to the hundredths (e.g., 0.1, 0.01).
- > In Grade 5, students estimate, calculate, compute and verify arithmetic operations. They may use calculators to solve problems or explore numbers. Students are expected to estimate and calculate accurately. Many students use computer resources (software and Internet sources) to practise math skills.
- > Grade 5 students can select the correct metric unit to measure mass, liquid capacity and linear measurements. They now use cubic centimetres and millilitres to find volume. They also work with irregular shapes to find their areas and perimeters.
- > Students are able to name two-dimensional and three-dimensional geometric shapes, such as polygons, cones and cubes. Tessellation is just one of many Grade 5 math concepts. It means students slide, turn and flip shapes to see how they fit into other shapes.
- > In probability experiments, Grade 5 students predict outcomes and report conclusions using probability language. These terms include best/worst, probable/improbable, and never/less likely/equally likely/more likely/always. They graph, compare, construct, extend and summarize patterns using rules, charts, mental math and calculators.
- > Students identify a research question, predict results, create and carry out a plan to collect data, then display and analyse the data gathered. They use line plots and broken line graphs. Graphing terms include data, population, sample and frequency diagrams.



## Grade 6 Math

- > Students in Grade 6 work with numbers larger than one million (1,000,000). They read, write, compare, order (greater than, less than), estimate (place value), add and subtract. They multiply and divide whole numbers. Students also learn to work with decimal fractions, integers (positive and negative numbers), ratios (comparing two numbers) and percentages.
- > Grade 6 problem-solving questions are both fixed (only one answer) and open-ended (more than one answer). Answers to open-ended questions depend on the problem-solving approach selected by the students and on how fully the answer is explained. Students now use ratios, rates, percentages and decimals to solve problems. They apply number relationship information to problem-solving. Grade 6 students use patterns to represent and solve problems by making charts and using symbols.
- > Grade 6 students use a wide variety of instruments, such as rulers marked with different units, calculators, protractors, compasses, circle templates and counting objects. Calculators with square-root function and computer spreadsheets may also be used.
- > Grade 6 students solve simple algebraic problems. They understand the appropriate order to add, subtract, multiply and divide in equations, using paper and pencil and a calculator (where appropriate).
- > Students can describe and compare real world phenomena using either direct or indirect measurements. They learn to estimate, measure and calculate surface areas and the volume of rectangular prisms. They draw, construct and measure various geometric shapes and angles.
- > In Grade 6, students classify triangles by measuring the angles. They learn to recognize angles as being more than 90 degrees (i.e., obtuse), equal to 90 degrees (i.e., right), less than 90 degrees (i.e., acute) or greater than 180 degrees (i.e., reflex). Students measure angles with a protractor and compare angles found in their environment.
- > Students in Grade 6 sort shapes according to their lines of symmetry, examine optical illusions and reproduce geometric drawings, three-dimensional solids and skeletons (with or without grids). Students create, analyse and describe geometric designs.
- > Grade 6 students design and use questionnaires to collect information across the curriculum areas. They interpret and display the collected information in a variety of ways. Students also create and solve problems based on probability.



## Grade 7 Math

- > Students in Grade 7 continue to work with numbers larger than one million (1,000,000). They read, write, compare, order (greater than, less than), estimate (place value), add and subtract. They multiply and divide whole numbers, decimals, fractions, integers (positive and negative numbers) and percentages. Students also learn to work with ratios.
- > Students now begin to solve equations where numbers are missing. Grade 7 students solve algebraic problems that are more advanced. They understand the appropriate order to add, subtract, multiply and divide in equations, using paper and pencil and a calculator (where appropriate).
- > Grade 7 problem-solving questions are both fixed (only one answer) and open-ended (more than one answer). Answers to open-ended questions depend on the problem-solving approach students choose and on how fully the answer is explained. Students continue to use ratios, rates, percentages and decimals to solve problems. They apply number relationship information to problem-solving. Students in Grade 7 continue to use patterns to represent and solve problems by making charts and using symbols.

- > Grade 7 students use a wide variety of instruments, such as rulers marked with different units, calculators, protractors, compasses, circle templates and counting objects. Using these tools helps to develop conceptual understanding. Students might use calculators with square-root function and computer spreadsheets.
- > Geometry means solving problems involving circles. Students measure circles and discuss the relationships between diameter, radius and circumference. They can describe and compare real world phenomena using either direct or indirect measurements. In Grade 7, measurement includes time zones, and students learn to determine time zones in various regions of the world.
- > Students in Grade 7 expand their understanding of angles to include many new concepts, including complementary and supplementary angles. They learn to identify and name pairs of angles (corresponding, vertically opposite, interior and exterior). Students continue to measure angles but also use calculations to determine measures.
- > Grade 7 students design and use questionnaires in more sophisticated ways. Students also create and solve problems based on probability.

## Social Studies Learning Standards

### From Grade 4 to 7

The social studies curriculum in grades 4 to 7 is designed to produce thoughtful, responsible, active citizens who consider a range of opinions before making judgments on issues. Students study:

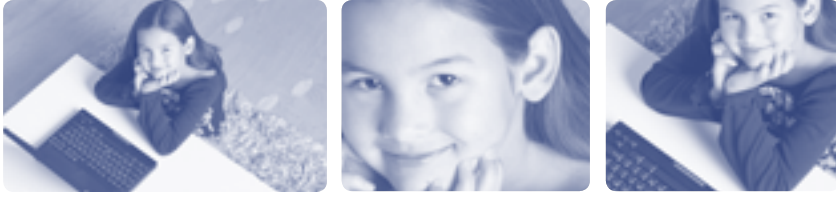
- > data-gathering and analysis, critical thinking, mapping, graphing and problem-solving;
- > aspects of citizenship, Canadian issues and culture and various world cultures (past and present);
- > early explorers, government structures of Canada and world nations (past and present);
- > Canadian and world economies, systems of exchange and the impact of technology on the growth of nations;
- > the geography of Canada and the world, human interactions with the environment and how people use natural resources.

### Grade 4 Social Studies

At the Grade 4 level, students focus on the richness of First Nations cultures in Canada. They look at First Nations development in terms of land, resource availability and cultural needs. Students learn about historic and current First Nations cultures, including technology, myths, legends, art and story-telling. They also study the history of interaction between Canada's First peoples and early European settlers. Students engage in a wide variety of learning activities throughout the Grade 4 year. They make maps using simple grids, scales and legends. Students also organize information into a variety of projects that show their understanding of a main idea with a series of supporting details. Grade 4 students compare a non-monetary, bartering means of trade with a monetary system. Through their studies, students develop an awareness, appreciation and respect for various First Nations cultures in the land we now call Canada.

### Grade 5 Social Studies

In Grade 5, students focus on Canada and the development of the Canadian cultural mosaic, as influenced by the first peoples and French and British settlers. Students investigate the reasons behind immigration and settlement patterns in Canada. They study the challenges immigrants face and their contributions to Canadian culture. Students in Grade 5 also examine current Canadian government, citizenship, rights and responsibilities. Students at the Grade 5 level might adopt and defend a position on a regional or local issue while, at the same time, appreciating other points of view. Students may make oral, written or multimedia presentations. They learn to read maps that display elevation, resources and population. Students use latitude and longitude to locate provinces, territories and their capitals. They research information using original documents or artifacts as well as other people's interpretations of events. Students in Grade 5 study municipal, provincial, federal and First Nations government structures.



## Grade 6 Social Studies

At the Grade 6 level, students adopt a global perspective. They examine world issues including overpopulation, water pollution and environmental stewardship. Students study global citizenship as it relates to individual rights and responsibilities. They examine a variety of cultures to determine how different groups of people meet their basic needs, structure their families, assign roles within families and relate to their environments. Students at the Grade 6 level can support a position on a national issue while recognizing competing points of view. Students examine time zones as they relate to lines of longitude. They identify and describe major geographical features within selected countries. Students in Grade 6 compare Pacific Rim countries and their economic relationships with Canada and British Columbia. They explore present-day cultures to determine how basic needs, family, and cultural diversity compare with life in British Columbia and Canada. Students examine how different groups of people celebrate culture in terms of food, art, language, holidays and religious practices. In Grade 6, students also explore the purpose and function of the United Nations and UN human rights principles.

## Grade 7 Social Studies

Grade 7 students learn to appreciate the complexity and evolution of ancient cultures. They study the governments, societal development, technological innovations and economic structures of ancient civilizations. Students at the Grade 7 level examine how ancient cultures interacted with and were influenced by their physical environments. They use print and electronic sources to research how ancient governments gained and used power and authority, and how they developed rules and laws. Students also examine the influence of physical environments, economic needs and settlement patterns on occupations in ancient cultures. They learn how basic needs were met, what daily life was like, how families were organized and what roles men and women played. Students explore the consequences of contact and conflict between cultures. They look at similarities and differences between past and present societies. In addition to their study of ancient cultures, Grade 7 students can support a position on a global issue while recognizing other points of view.

# Science Learning Standards

## From Grade 4 to 7

The science curriculum in grades 4 to 7 develops and extends students' sense of wonder about the world and encourages them to feel responsible for it. Students:

- > design, perform and draw reasonable conclusions from experiments;
- > investigate how models can be used to represent processes that cannot be observed directly;
- > explore the adaptations and classifications of organisms, the micro-scopic world, animal fossils and ecosystems;
- > learn about simple machines, electricity, light and colour, resources, chemical reactions and physical changes;
- > learn about space exploration, the solar system, astronomy and the earth's crust.

At each grade level, students study life science, physical science and earth and space science. Students learn specific scientific processes, procedures and uses of technology.

## Grade 4 Science

Grade 4 students are naturally curious and love to play with science. They enjoy hands-on experiments and can handle structured and unstructured explorations. Students in Grade 4 begin to use language that is more scientific when they speak and write, but must be encouraged to use appropriate terms. They often choose non-fiction reading material to learn about the world around them. They like to research and create visual displays about what they learn. They understand the scientific process of identifying a question, predicting an outcome and testing their predictions. At this age, students require support to follow through with these procedures. Grade 4 students follow oral and written instructions with increasing independence and a growing ability to read and write. Field trips, computers and videos support what children are learning in Grade 4. Topics may include:

### Life Science

- > Learn the basic structure and function of muscles, bones and the digestive system.
- > Examine how habitat changes can affect the survival of individual species.

### Physical Science

- > Investigate forces and simple machines.
- > Develop an understanding of electricity and construct simple electrical circuits.

### Earth and Space Science

- > Determine the properties of water and infer its importance for all life forms.

## Grade 5 Science

Grade 5 students are curious and enjoy science. They use computers and print and multimedia material to gather information for science activities and field trips. They write simple reports and create varied displays and projects about what they have learned. They use scientific language when they speak and write. Grade 5 students enjoy hands-on experiments. They state key questions to identify and test their predictions. Students in Grade 5 can design and carry out scientific investigations with support. Topics may include:

### Life Science

- > Examine the human body's respiratory, circulatory and sensory systems and compare and contrast them with those of animals.
- > Describe how people use B.C.'s living and natural resources (e.g., forests, rivers and fish).

### Physical Science

- > Study the sources and uses of natural and synthetic materials.
- > Study the behaviour of light and the nature of colour.

### Earth and Space Science

- > Learn how non-renewable resources — such as minerals, water and coal — are extracted.
- > Discuss weather patterns and describe the consequences of extreme weather conditions

**DID YOU KNOW?**  
THAT THERE ARE ABOUT  
600,000 STUDENTS  
GOING TO PUBLIC  
SCHOOL IN B.C.?

**DID YOU KNOW?**  
THAT WATCHING TOO  
MUCH TV CAN BRING  
STUDENTS' GRADES  
DOWN?



## Grade 6 Science

Grade 6 students collect detailed data and make precise observations. Students in this grade write clear, step-by-step instructions for conducting investigations and draw reasonable conclusions from experiments. They learn to identify scientific concepts with specific terminology. They are able to think abstractly and respond in some depth and detail. Students in Grade 6 independently gather information from books, print material, videos and the Internet. They use a standard format for science reports. They follow safety procedures reviewed and enforced in the classroom. Topics may include:

### Life Science

- > Classify organisms into scientific orders.
- > Find similarities and differences in microscopic animals and plants.

### Physical Science

- > Classify and distinguish between chemical and physical changes in matter.
- > Investigate different types of forces.

### Earth and Space Science

- > Investigate how space exploration has helped us to understand the universe.
- > Study and develop models of the solar system.

## Grade 7 Science

Grade 7 students explore the nature of scientific investigation and how science affects the world. They study more complex scientific ideas but continue to work hands-on. Students at this level select appropriate procedures, equipment and techniques to conduct their experiments. They review safety procedures and scientific processes from previous years. Students in Grade 7 are required to work more independently as they conduct experiments. They are more independent in gathering information from books, print material, videos and the Internet. Students at this level are expected to answer questions in depth and detail. Topics may include:

### Life Science

- > Examine life cycles of humans and other organisms.
- > Explain how changes in ecology affect organisms.

### Physical Science

- > Explore changes in chemistry through student questioning and experiments.
- > Investigate energy types and sources.

### Earth and Space Science

- > Develop an understanding of the complexity of the universe.
- > Identify geological features and simulate changes that happen on the earth's surface.



## Physical Education Learning Standards

### From Grade 4 to 7

Children who are physically active benefit in many ways. The aim of the physical education curriculum in grades 4 to 7 is to improve students' quality of life through active living. Through participation in physical education, students develop the knowledge, skills and attitudes necessary to incorporate physical activity into their regular routines and leisure pursuits, so that they may lead active, healthy lifestyles.

Students:

- > participate in activities that promote well-being and personal physical fitness;
- > learn skills that apply to many games, sports and activities;
- > learn life skills such as communication, co-operation, leadership and teamwork.

In all four grade levels students participate in a variety of activities:

- > Dance
- > Co-operative games
- > Individual and group activities
- > Games
- > Gymnastics

### Grade 4 Physical Education

Grade 4 students are active. In general, Grade 4 boys are more interested in freeplay, while Grade 4 girls are more interested in following rules. Children in Grade 4 begin to identify and demonstrate etiquette and fairness in games. At this level, they require support to follow simple rules, routines and safety procedures. Students in Grade 4 start to show respect for individuals' potential, different interests and cultural backgrounds.

### Grade 5 Physical Education

Grade 5 students enjoy participating in organized activities. They continue to gain self-confidence while taking part in physical activities and organized games. Team rules, strategies, routines and safety procedures are reviewed in all activities. Students identify and set goals to develop personal fitness and motor abilities. In general, Grade 5 girls and boys appear to have similar physical abilities; both groups want to play by the rules but may require support to do this.

### Grade 6 Physical Education

Grade 6 students continue to participate in formal physical education classes with organized activities. Grade 6 boys tend to use strategy when playing individual and team sports. Students continue to identify and set goals and modify them to develop personal fitness and motor abilities. As they mature, the range of physical abilities widens. Students in Grade 6 welcome opportunities to monitor their personal growth in physical fitness over time.

## Grade 7 Physical Education

Grade 7 students continue to participate in formal physical education classes with organized activities. At this level, there is an increasing focus on active health theory (such as heart rate monitoring, naming muscle groups and understanding the purpose of regular fitness). Grade 7 boys vary greatly in physical size. As they mature, Grade 7 girls and boys continue to differ in physical abilities. Students in Grade 7 are interested in monitoring their personal growth in physical fitness over time. Some Grade 7 students are very athletic and actively pursue opportunities to participate in extra-curricular sports.

# Personal Planning Learning Standards

## From Grade 4 to 7

In each of the intermediate grades, the personal planning curriculum is divided into three main categories:

- > the planning process: goal setting and decision making;
- > personal development: healthy living, mental well-being, family life education, child abuse prevention, substance abuse prevention, safety and injury prevention;
- > career development: personal attributes, skills, career categories and specific jobs.

## Grade 4 Personal Planning

### Planning process

Students in Grade 4 identify their dreams and set goals. They learn that meeting their goals involves time management and planning.

### Personal development

Students classify food according to Canada's Food Guide to Healthy Living. They identify positive ways to create and maintain friendships. They begin to understand the physical differences between males and females. Students in Grade 4 discuss types of abuse and neglect, including physical, emotional and sexual. Substance abuse prevention strategies and safe behaviour are also discussed.

### Career development

Students recognize their skills, strengths and needs. They compile lists of their personal strengths and skills and learn to appreciate the best qualities of others.

## Grade 5 Personal Planning

### Planning process

Grade 5 students learn that managing their time is an important step in achieving their goals. They identify and follow steps in the decision-making process.

### Personal development

Students in Grade 5 can describe healthy, balanced lifestyles. They examine the differences between individual and group friendships. They study the physical, emotional and social changes they are going through. At this level, students also discuss the consequences of physical, social and emotional abuse and exploitation. They explore the reasons behind substance use and abuse, as well as the effects on individuals and families.

### Career development

Students look at changes in their skills, strengths and needs. They identify the skills and strengths of people they admire. Students also make connections between work habits and personal skills.

#### DID YOU KNOW?

THAT WHEN THE TEMPERATURE GOES UP, ENERGY AND CONCENTRATION GO DOWN?

#### DID YOU KNOW?

THAT THE IDEAL TEMPERATURE FOR LEARNING SEEMS TO BE 17° C?



## Grade 6 Personal Planning

### Planning process

Students in Grade 6 choose strategies to achieve their goals. They discuss the importance of support networks, such as family, teachers and friends. Students are asked to identify factors that will help them achieve their goals.

### Personal development

Students look at global factors that influence health (e.g., SARS, West Nile virus and travel). Students discuss appropriate ways to share and express their feelings. In this grade, students can identify the difference between supportive and non-supportive relationships. They learn about basic emergency procedures. They discuss stereotypes and also develop strategies to resist peer pressure.

### Career development

Students expand their “bag of skills” and learn to recognize how their abilities are developing. They also identify talents and skills of role models employed in a variety of jobs and careers.

## Grade 7 Personal Planning

### Planning process

Students in Grade 7 take steps to achieve their goals by practising responsible decision-making (e.g., starting a project well before it is due, using support networks and managing time effectively). Students learn to reflect, assess and adjust their actions as needed.

### Personal development

Student activities include providing examples of how the economy, environment and society affect healthy living; describing the responsibilities of friendship; and explaining how the human reproductive system works. Students learn to identify the characteristics of healthy and abusive relationships. They also discuss the possible personal consequences of substance abuse and other unsafe behaviours.

### Career development

Students in Grade 7 examine a variety of occupations and identify similarities and differences between them. They also look at their personal skills and consider how they can be applied to various occupations.

# Second Language Learning Standards

## From Grade 5 to 7

Beginning in Grade 5, a second language must be taught in B.C. classrooms. French is by far the most commonly taught second language. Other second languages approved and supported by the B.C. Ministry of Education include American Sign Language, German, Japanese, Mandarin Chinese, Punjabi and Spanish. Some school districts and education authorities have also developed specialized second language programs. At present, seven First Nations languages, as well as Arabic and Italian, have been approved by the Ministry of Education through this process. The aim of second language instruction is to enable students to communicate effectively in a language other than English, and to learn about other cultures.

## Grade 5 Second Language

Students are introduced to a second language in Grade 5. At the introductory level, students use memorized responses to convey greetings; to communicate likes, dislikes, wants, needs; and to ask and answer simple questions. They learn to follow basic instructions in the second language. Students also think about characteristics of their own cultures and those that relate to the language being learned. Students learn to speak, listen and read simple words and phrases. Writing the second language is not emphasized in Grade 5.



## Grade 6 Second Language

Grade 6 students build on the knowledge acquired in Grade 5 to develop their conversational skills. They use patterned responses (i.e., learned or practised phrases) to greet each other, talk about their interests and ask for items (e.g., they might role-play ordering food in a restaurant). Students recognize and use formal and informal forms of address and use the second language in everyday classroom situations. Students compare characteristics of their own culture with cultures that employ the language they are learning. Students may do research in the second language and present the results of their research orally, supported by visuals. In Grade 6, opportunities to write in the second language gradually increase, although assessment at this level focuses on listening, reading and speaking.

## Grade 7 Second Language

In the third year of second language instruction, Grade 7 students build on speaking skills learned in grades 5 and 6. They ask for and give simple information (e.g., time, date and weather). They exchange information about themselves and use their second language in a variety of classroom activities. Students in Grade 7 use information from second language resources to complete assignments. They express what they have learned in oral and visual forms, and continue to write in the second language. As in grades 5 and 6, assessment focuses on the major communication skills of listening, reading and speaking. Students learn about the second language culture in B.C. and Canada. They share family customs and routines.

# Fine Arts Learning Standards

## From Grade 4 to 7

In intermediate fine arts, children are encouraged to explore, create, perceive and communicate thoughts, images and feelings. The fine arts contribute to intellectual, esthetic, social and physical development. Through fine arts experiences, students explore and describe aspects of dance, drama, music and visual arts in a range of cultures and periods of time. Students develop skills to express their own ideas and emotions by creating and performing. Fine arts experiences foster critical-thinking skills, including describing, analysing, interpreting, judging and making thoughtful responses. The fine arts may be integrated into all subject areas.

## Drama

Drama uses voice, language and movement to communicate, and contains elements of play. It encourages children to learn about human experiences in imagined and real situations, past and present. Drama builds respect for different values and cultures throughout history. Dramatic activities include role-play, readers' theatre, improvisation, frozen tableaux (scenes), skits, plays and choral speaking. Many students enjoy the way drama helps them express their ideas and feelings.

Drama helps students solve problems. Together with their peers, students can "try on" life situations in a safe environment and practise making choices and taking responsibility. Drama provides students with an opportunity to learn about themselves and others in different situations. Co-operation and constructive peer feedback are key elements of school drama programs.

- > Grade 4 students use drama to tell stories. Students choose language and movement for each character, and learn to concentrate and stay in their character's role. Students often work co-operatively to develop their own drama activities.
- > Grade 5 students use drama to look at differences between stereotypes and authentic (real) characters. They learn to interact in the characters' roles. Students in Grade 5 are introduced to the design elements of sound, sets, lighting, costumes, make-up and props. At this level, some students enjoy taking a leadership role in drama activities.

- > Grade 6 students use drama to interpret attitudes and beliefs of various characters. They are increasingly able to show commitment to their characters' roles. Students at this level have more opportunities to choose design elements (sound, sets, lighting, costumes, etc.) to enhance their work. Students work co-operatively to produce dramatic works. Some students at this level express an interest in pursuing careers in the dramatic arts.
- > Grade 7 students are able to interpret the motivations of their characters. They can create and adapt a character role. Students may enhance their work by choosing design elements (sound, sets, lighting, costumes, etc.) to produce desired effects. Students in Grade 7 show respect for the ideas of others within the drama group. Some students identify personal and career opportunities in the dramatic arts.

## Music

Students in the intermediate grades participate in a wide range of musical activities. These may include playing a variety of instruments, singing, listening, creating new music and performing. At each grade level, students build on previous skills to play/sing/create increasingly complex rhythms, melodies and harmonies. Students also learn to use traditional and invented music notation to record their compositions. By listening to a range of music from different cultural and historical contexts, students broaden their appreciation of musical experiences. Students respond through performing, discussion, movement and reflective writing, and are able to connect their emotions, thoughts and experiences. Students learn to appreciate and respond appropriately to a variety of music performances, and to demonstrate performance skills and attitudes.

- > Grade 4 students reproduce melodies and rhythm patterns using voice and instruments. They use criteria to evaluate their own musical activities. Students use standard or invented notation to represent rhythmic patterns and melodies, as well as to identify musical forms. Students in Grade 4 listen to music from different parts of the world and periods of time.
- > Through singing or playing instruments, Grade 5 students perform rhythmic patterns and simple melodies and harmonies. They can write the pieces they perform in musical notation. Students can identify distinguishing features of music from different parts of the world and periods of time. Students use criteria to evaluate their own music, or music by their group.
- > Grade 6 students use their rhythmic and melodic skills and understanding of form and design to perform compositions using conventional notation. They compare music from different parts of the world and periods of time. Students might identify personal and career opportunities in music.
- > Grade 7 students explore more complex rhythmic and melodic patterns and use the appropriate terminology to describe musical elements. Students compare music that has been created for a variety of purposes. They also give and receive constructive feedback about their own and others' music performance.

## Visual Arts

Visual arts give students the opportunity to perceive, create and respond to images, as well as to communicate through them. Students become aware of the ideas and emotions expressed in visual images and artwork. Visual arts education enables students to gain the knowledge, skills and attitudes they need to participate in and appreciate the visual arts. Throughout the intermediate grades, students learn about and experiment with techniques that artists use to develop two-dimensional and three-dimensional images. Students draw, illustrate, sculpt and make prints. Students develop increasingly complex skills as they move from Grade 4 to 7. They learn to distinguish the elements and principles of design in images created by artists and then use these elements and principles in their own works of art. Students choose and experiment with a variety of materials, tools, equipment and processes. They learn to work safely and with concern for their environment.

- > Grade 4 students create two-dimensional and three-dimensional images that express their personal identity. Students in Grade 4 study and create their own landscapes in different styles, such as that of Emily Carr or Ted Harrison. Through these activities, they learn elements and principles of design, including line, colour, form, unity, contrast and emphasis. Students choose particular materials, techniques and processes to create their artwork, and give reasons for their artistic choices.
- > Grade 5 students create two-dimensional and three-dimensional images that express ideas and use more than one of the senses. Students compare the styles of artists from various cultures and historical periods. Through these activities they learn elements and principles of design, including value, tone, movement, balance and emphasis. Students identify and compare the use of materials, tools and processes in a variety of artwork.



- > Grade 6 students create two-dimensional and three-dimensional images that express beliefs and values. Students in Grade 6 study and create images that convey mood in the style of a variety of artists. Through these activities and experiences they learn elements and principles of design, including space and rhythm. Students learn to collaborate to develop a group display of artwork for a particular audience. Students develop an awareness of personal and career opportunities in the visual arts.
- > Grade 7 students create two-dimensional and three-dimensional images that express beliefs and values. They study and create images that solve a design problem while considering their form and function. Students evaluate their preferences for chosen works of art. Students become aware of the ethical considerations of reproducing artwork. Through these activities they learn elements and principles of design, including texture, balance, pattern, variety, contrast and repetition.

## Dance

Dance education gives students the opportunity to experience, understand, and appreciate the language and art of dance. Students participate in a range of dances to build their understanding of gesture and movement in various cultures and historical periods. Dance develops knowledge and skills that allow students to express their ideas and emotions through movement. Students in the intermediate grades create sequences that combine the elements of movement, such as body, space and time.

They learn techniques to perform a variety of dance styles (e.g., creative dance, folk dance, square dance or hip hop). Students also examine health and fitness related to dance. In grades 4 to 7 dance education, students also learn appropriate audience skills for different types of performances.

- > Students in Grade 4 learn to combine dance elements such as levels (low, middle and high), pathways (straight, curved and zigzag) and movement directions (sideways, forward and backward) into movement patterns. Students interpret the feeling and mood shown in a dance performance, and learn to respond in movement to the feelings and moods conveyed in sound and music. Students develop criteria to evaluate their own and others' dances. In Grade 4, students identify different purposes of dance and recognize dancers' roles in various cultures and historical periods.
- > Students in Grade 5 show more independence in combining the elements of movement (levels, pathways and directions) to develop choreographed dance sequences. They identify techniques associated with particular styles of dance. Students use established criteria and dance vocabulary to analyse a dance performance. Grade 5 students learn about opportunities for being involved in dance in their community.
- > Students in Grade 6 demonstrate a variety of dance techniques and use the elements of movement to create individual and group dance sequences. Students revise their dance compositions by exploring, selecting and combining various elements and techniques. Grade 6 students improve their own performances through self and peer evaluation.
- > Students in Grade 7 learn a variety of dance techniques from a range of dance styles. They apply principles of movement, such as alignment, flexibility, balance, strength and breathing to their dancing. Students create movement in response to the expressive elements of music, such as dynamics, tempo and articulation. They develop movement sequences using patterns to show themes or stories. Grade 7 students rehearse and refine dance for a specific performance setting.

# 2 | Parents and Families Can Help

## Helping Your Child with Reading

Reading can be a shared activity. Parents and children enjoy reading for fun and for information. Your child develops reading skills when you:

- > share the reading;
- > talk about the reading.

**Share the reading** — Research says that parents who read, show interest in reading and have books in their homes foster strong reading interest and capability in their children. You can nurture a love of learning by reading with and to your children. Find and share a collection of reading material that focuses on one of your child’s interests (e.g., if your child loves horses, gather novels, books of facts, magazine articles and newspaper articles about horses to share). Alternate reading the material aloud together. Tell your child about an interesting article or novel you are reading, or ask for your child’s opinion about an idea in a book that you are reading.

**Talk about reading** — An important part of the reading process for children is talking about what they are reading. This helps them to gain a better understanding of what they have read. You can nurture a love of reading by asking your children to tell you about books they are reading.

### Choosing books

Reading preferences vary among children. Some children enjoy lengthy stories and novels. Others enjoy comic books, magazines or a newspaper section. The important thing is to have your child read during some of his or her spare time—a minimum of 20 minutes per day in Grade 4, increasing to 45 minutes a day by Grade 7. Of course, many children read much more than this—and they should be encouraged to do so.

### Reading together at home

Reading together builds family ties and shows that the family values reading. Finding a regular time to read supports your child’s academic success. Pick a special reading time when everyone in the family reads. If possible, give your children their own reading space (e.g., their own space on the bookshelf for their books or pillows on the floor to sit on). Here are some other ideas to get your family reading at home:

- > Read aloud to build interest and to help children get a better sense of the story by hearing changes to the tone of voice when the story is suspenseful or a character speaks.
- > Take turns reading. This is fun and motivates your child to read books that are more difficult. It is also a good idea to encourage older siblings to read to younger ones.
- > Discuss what you and your child read.
- > Ask questions before you read:
  - Have you read other books by this author?
  - Have you read other books on this topic?
  - Are your friends reading these books?
  - What do you think this book is about?



- > If your child's mind seems to mind wander while reading:
  - Ask what is happening.
  - Ask for opinions about the story's characters, problems and events.
- > Ask questions after reading:
  - Did you like it? Why or why not?
  - What was the best part? The saddest? The scariest?
  - Which character did you like and why?
  - How would you change the story? The ending?
  - Would you read other books on the same topic or by the same author?
- > Draw a picture about a book you have read together.

## **Around the home**

Here are some everyday activities to get children reading:

- > Encourage your child to look up phone numbers when needed.
- > Read the newspaper together and point out parts that might interest your child (e.g., sports results, ads for bookstores, movie reviews or articles about horses).
- > Ask your child to use flyers to make a shopping list.

## **Novel ideas**

If your child is reading a novel, here are some key questions you might ask:

- > Where does the story take place?
- > What are the problems in the book?
- > What messages or lessons can you learn from this story?
- > What do you think will happen in the book?
- > What happened in the book so far?
- > Who are the characters, and what are they like in appearance and personality?
- > How has the character changed from the beginning of the story?
- > If you could be like any of the characters, who would it be?
- > Does this book remind you of any other books?
- > If you could change the end, how would you change it?
- > What would the sequel to this book be like?

## **Reading on the road**

Planning a weekend trip or a holiday is an opportunity for reading:

- > Ask your child to locate the destination on a map. Look at the destination in relation to other places, and plan alternative routes.
- > Search the Internet for information about your travel destination.
- > Encourage your child to read everything available in a new place while on holiday (e.g., street signs, store signs, historical/city information and places of interest).

## The new family hang-out: The library

Make a regular date for your family to visit the library. Help your child become familiar with the library's services and procedures:

- > Get library cards for the whole family.
- > Ask the children's librarian for book ideas. Ask which books are popular with young people.
- > Encourage children to use a variety of print materials, such as encyclopedia, almanacs, dictionaries, thesauruses and atlases.
- > Have your child check for audiotapes of their favourite stories.

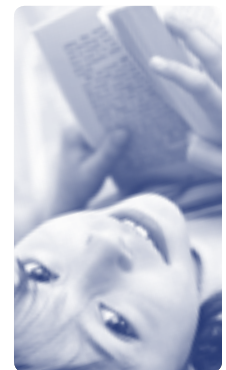
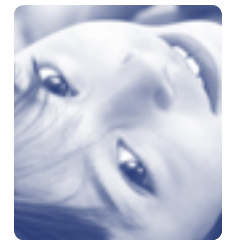
## Give the gift of literacy

- > Buy books as gifts. A book is a gift you can open time and time again.
- > Give a magazine subscription (e.g., Sports Illustrated for Kids or Canadian Geographic).
- > Give crossword and word search puzzles; either buy a whole book or use the ones in the newspaper.
- > Help your children pick out their favourite books from a book club catalogue.

## What if...?

If your child cannot read a word, try this before you get a dictionary or explain it:

- > Wait five seconds and then give a clue (e.g., sound it out, look at the picture or reread the sentence).
- > If your child is still stuck, wait five more seconds and then explain the word.
- > If your child makes a mistake and continues reading without a pause, ignore it.
- > If your child makes a mistake and hesitates (a good sign), wait five seconds and then ask if it makes sense. If there is still no progress, explain the word.
- > If you're not sure if a book is really too difficult, ask your child to read a page aloud. If they make more than five mistakes on that page, it's time for you to take over the reading. That book is too difficult for your child to read independently.



## Parent advisory councils: Activities you might consider

Parent advisory councils can support reading programs in their schools by:

- > sponsoring and supporting home reading programs;
- > providing opportunities for parents to come and read with students at school;
- > sponsoring authors and illustrators to visit the school;
- > getting involved in community book-reading clubs.

## Helping Your Child with Writing

Writing is an important life skill. Communicating ideas clearly in writing is important at home and in all parts of life. In school, children learn to write in specific forms and formats, such as rhymes, poems, plays, letters, journals and information recording. They learn that each form has a specific purpose and is written for a particular audience.

## Record personal experiences

- > During a trip or special event (camp, concert, etc.), have your children keep notes or draw pictures so that they can remember details later. Encourage your child to save souvenirs. After the event, have your child build a scrapbook with words and images, using a large notebook or sheet of heavy paper. Your child can cut, paste, draw and add fancy lettering, glitter and special decorations to their own book of memories. This activity works best when the ideas are recorded soon after the events.
- > Have your child keep a personal book of thoughts, ideas and feelings. A diary or journal entry could be a few sentences about a highlight of their day.
- > When travelling, encourage your child to keep a travel journal.

## Plan events

- > When planning a special event, ask your child to get involved in writing out the details.
- > Ask your child to design an interesting menu for the guests.
- > Have your child help develop a list of things you need to do and to purchase for the event.

## Make requests

- > When your child wants something important (e.g., a new pet, bike, skateboard, skis), ask for a full written request, including reasons, expected costs, and ongoing maintenance (if appropriate). You may choose to reply in writing if you wish. Once the deal has been negotiated, ask your child to write a contract for the commitment.

## Practise writing around home

- > Have your child write down emergency phone numbers and family phone numbers, and leave them by the telephone.
- > Leave a pad and pencil by the phone and ask your child to write down phone messages.
- > Encourage list-making (e.g., lists of groceries or pros and cons for making decisions or choices on an issue).
- > Ask your child to make signs for your home, such as a welcome sign for the front door, a poster of house rules or door signs for bedrooms.

## Play writing games

- > Create a search-and-find game by leaving clues to lead participants to different locations and finally to a treasure or prize. The participants may be asked to perform a task (e.g., jump 30 times, sing a song) before moving on to the next station.
- > Play the newspaper game. Two people take turns reading the sentences of an article from a newspaper. The two players agree to find one type of word (e.g., nouns or verbs) in each sentence. The first player identifies and marks the target words. A point is counted for each correctly marked word. Partners switch when someone makes a mistake. In the following example, the nouns are underlined: “Parents of Grade 6 students are attending the meeting at the school tonight.” In this example, the verbs are underlined: “Parents of Grade 6 students are attending the meeting at the school tonight.” (Parents can make deliberate errors so the child will have a turn sooner.)
- > Play a game called “Never-Ending Story.” One person writes the beginning of a story on a paper. The writer passes the paper to the next writer (such as a parent, brother or sister) to add their ideas. The paper is then given to the next writer to continue. This activity can also be played by leaving the story paper out at a designated place to be continually added to (e.g., left on a child’s pillow, on the fridge, taped to the computer screen, on their skateboard, etc.).
- > Play “Mad-Libs.” Write a story or use a newspaper article with blanks for the nouns or verbs. On a separate page, write a number of nouns and verbs. Insert the nouns and verbs into the story to make a “mad-lib” story.



- > Designate a time for the “Vow of Silence.” This is 30 minutes to an hour when no one in the house can talk aloud. All communication is achieved by notes only. Before you start, determine the reward for keeping the silence or the consequence for breaking the silence.
- > Play word board games such as Scrabble, Boggle and Spill and Spell.

### Encourage creative writing

- > Create a writing centre. Include coloured pens, markers and different paper samples (with different colours, shapes, textures or paper stock). A writing centre can be a wonderful place to create stories, poems and notes. Include a dictionary for reference.
- > Have your child choose a favourite song and rewrite the lyrics. Keeping the basic form of the song, have your child rewrite single words, full phrases or even whole verses. Try keeping the rhyme and rhythm patterns the same as in the original music.
- > When children create architectural or engineering drawings or diagrams (such as houses, cabins, buildings, tanks, planes or trains), have them label the parts.
- > After reading a story or chapter of a book, have your child write a short piece (three or four sentences) about what they read. Have them create a different ending.
- > Have your child create a word search or crossword puzzle. This can be done around a theme.

## Helping Your Child with Math

Opportunities to learn and apply math skills arise naturally in everyday situations around the house and in the community. By showing your child practical ways to apply skills such as estimating, graphing, quick fact recall, fractions, problem-solving, skip counting and geometry, you can support your child’s learning outside the classroom. The following are some practical ways to enhance your child’s grasp of math.

### Estimating for fun

Everyday situations can provide opportunities for estimating number value. For example, ask your child to round up the price of a restaurant meal and estimate how much tax and tip will have to be paid. The following activities are fun opportunities to practise estimating:

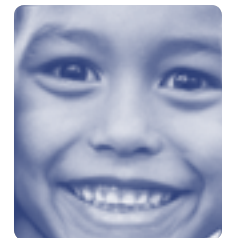
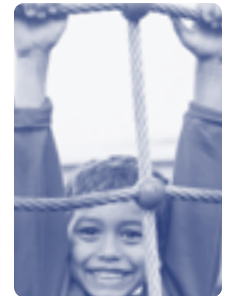
#### Shop and learn

Involving children in purchasing decisions gives them the chance to learn about the opportunities and limitations of a budget. Encourage your child to be a well-informed shopper. Ask:

- > How much will it cost to buy this item?
- > Can you round up the price and estimate the cost to the nearest dollar? Then estimate applicable taxes and add that to the total amount.
- > Do you have enough cash on hand to buy it?
- > If not, what could you buy instead?

#### Travel and learn

Taking a trip is a golden opportunity to talk with your children about estimating time and distance. Tell them how far it is to your destination. Ask them to calculate how long it will take to travel the distance if you are travelling at 100 kilometres per hour. Each occupant in the car can guess what time you will arrive. It’s fun to see whose guess is closest to the actual time of arrival.



## Basic math facts and fun

In addition to estimation ability, quick recall of basic math facts is a valuable skill for everyday living. The activities described below are fun ways to encourage children to recall math facts quickly and accurately:

**Play board games and card games** - Board games develop computation skills in a lively, interactive setting. As parents and families play together, the adults can explain strategies to help children be successful in the game. Choose games where it is necessary to use number facts. Examples of skill-building board games are Yahtzee, Monopoly, cribbage, Life, Sorry and dominoes. Most card games require the ability to add and subtract quickly.

## Graphing in real life

Graphing is a good way to compare and contrast information visually. Children will quickly spot differences and similarities when they learn to read graphs. Try graphing in the following everyday situations:

**Newspapers** - Cut out graphs from daily newspapers and magazines. Discuss their meaning. Sort the graphs by type (e.g., line graph, bar graph and pie graph). How many different kinds do you have? Explain one fact you learned from each graph.

**Smarties** - Sort Smarties by colour. Create a bar graph that shows the number of each colour in the package. Try the same activity with packages of M&Ms and Reese's Pieces. Compare graphs by asking the following questions:

- > Which package holds the most/least?
- > What is the difference between the amounts?
- > How much does each piece cost?
- > Which do you think is the better value?



**Hydro bill** - Locate the graphs presented on your hydro bill. Ask the following questions:

- > What information is shown on the graph?
- > Which month did we use the least/most energy?
- > What is the difference between certain months?
- > How do they calculate the amount we owe?
- > Why would some months be more costly than others?
- > What activities in the house might use the most energy?



## Fraction action

Children can explore the concept of fractions in everyday situations. Fractions appeal to their sense of fairness during mealtimes (e.g., dividing into equal portions). Food items such as chocolate bars and pizzas are useful in creating simple fractions. Ask:

- > Will you get more if you eat  $\frac{1}{2}$  or  $\frac{6}{8}$ ?
- > Which fraction will give you the biggest piece?
- > If a pizza is cut in eighths, how many pieces will you get if you eat a quarter?
- > How can we divide this evenly so that everyone gets the same amount?





## Problem-solving 101

A math problem expressed in words is a difficult concept for many children. Be prepared to explain problems in different ways.

### Problem-solving sample

Using a word problem format, create a scenario where a certain amount of money is charged on a credit card. If the balance cannot be paid off at the end of the month, ask the child to calculate the amount of interest the credit card company will charge. Change the interest and balance as an extension of this task. (Investigating credit card interest rates might be another useful activity!)

### Tell a math story

Create a word problem story. Using pictures and objects, work through the solution together. For example, there are four cars with five boys in each car. How many boys are there altogether? Your child can then draw a picture of the cars, showing the number of boys in the cars. Alternatively, using blocks, they can show four groups of five.

Now your child will write the formula:  $4 \times 5 = 20$ .

## The shape of things

Basic geometry is a way to make sense of the physical world around us. We create mental images based on patterns and shapes. Children can use the vocabulary of geometry to describe their neighbourhood. During a trip to the beach or just around the community, identify architectural shapes. Ask your child the following:

- > Can you show me a hexagon? Cylinder? Cone? Rectangular prism? Triangular prism? Pyramid? Cube?
- > Can you name each figure and describe the attributes?
- > Can you recognize similar shapes in different positions (e.g., a triangle that has been turned upside down)?

## From sense to cents

In addition to basic estimating, the following are useful in developing your child's money sense:

### Skip counting

Skip counting is counting by twos, threes, fives, 10s, etc. It is useful for making change. Using real or play money, play "store" with your child, and show them how to calculate correct change. Later, when you are out with your child, ask them to apply what was learned by checking whether you received correct change from the grocery store, restaurant or shop.

### Banking

Open a bank account with your child. Calculate the interest on your initial deposit over the following year. Calculate savings and possible items that could be purchased. Perhaps most important, set up a savings plan. It's never too soon to start teaching your child the value of saving.

# Helping Your Child to Study

- > Establish a regular study time based around your family's routine.
- > A quiet, comfortable place free from distractions provides a good setting for studying.
- > Help your children get settled by making sure they have all the materials. Provide highlighters, Post-It notes and bookmarks.
- > Help your child locate information in non-fiction books by using the title, table of contents, index, headings, illustrations, bold print, etc.
- > Students should read their work, take notes, make charts or idea webs, write down key words and make up acronyms to help remember key points.
- > With your child, develop a weekly activity calendar that includes family events and activities, homework and study time.

## **Our commitment to education:**

Education is the most important investment we can make in our children's lives. The Province of B.C. is committed to building a top-notch system that puts students first. For more information, visit [AchieveBC.ca](http://AchieveBC.ca)