



# *BaSICS* *Middle Years* **Curriculum Information For Parents**

August 2009



## Grade 6 and 7 Curriculum

### Introduction

In the Middle Years at BaSICS, starting at grade 6, the curriculum becomes more clearly delineated according to the main subject areas: language, humanities, science, mathematics, the arts and technology, physical and health education. Four areas of exploration, however, give overall guidance to the course of study of the students, allowing the subject areas to come together under one major focus for each unit of study. This helps students see how the various subject areas interact and connect with each other and allows the subject teachers to emphasize and demonstrate the applicability of what the students are learning to the world outside the classroom.

The areas of exploration which will lend direction and overall all form to the curriculum are Environment, Human Creativity, Health and Human Relations, Community and Action. Questions which guide investigation in these four areas are:

Environment: What are our environments? What resources do we have or need? What are our responsibilities?

Human Creativity: Why and how do we create? What are the consequences?

Health and Human Relations: How do we think and act? How are we changing? How can we look after others and ourselves?

Community and Action: How do we live in relation to each other? How can I contribute to the community? How can I help others?

Students will also experience a wider variety of teaching styles as subject areas are now taught by specialist teachers. One homeroom teacher, however, is responsible for the overall well-being of the students within a class grouping and acts as the point of contact for all other teachers as regards the class and the students within it.

For the 2009/2010 academic year, there will be four major units guiding the teaching in the middle years subject areas.

Areas of Exploration	Environment	Human Creativity	Health / Human Relations	Community and Action
Unit Focus	Migration / Natural Disasters  Human movement/settlement in relationship to changes through climate, natural disasters/forces and how exacerbated by human settlement	Renaissance – Enlightenment  Exploration of the development of thought / humanity in the 16 <sup>th</sup> – 18 <sup>th</sup> Centuries as well as science and technological developments	Media / Advertizing / Peer Pressure and Adolescent Development  Maintaining individuality and a healthy self-image in a society where peer and media pressure are dominant factors of everyday life	Utopia / Creating a New Social Order  Creating the perfect community and what structures, laws, technological advancements, individual contributions would be necessary to do so

The next section contains a more detailed listing of the expected outcomes in the various subject areas for grades 6 and 7.

## **Mathematics**

### **Number**

Middle Years students broaden and refine their understanding of number and its use in comparing, manipulating and communicating quantities. They deepen their understanding of fractions, decimals, percentages and integers. Students explore multiplicative comparisons to develop their concepts of ratios, rates and percentages; and work flexibly between different visual, physical and symbolic representations of rational numbers. They are encouraged to choose and use appropriate representations of rational numbers in their daily activity when working with probabilities, money, measurements and data.

Students continue to refine their understanding of the four number operations as they use them with fractions, decimals, percentages and integers. They examine the validity and utility of the properties of these operations, such as the commutative and associative properties of addition and multiplication.

### **Algebra**

Students come to the Middle Years understanding that many of the patterns from their daily lives involve natural phenomena, while others are socially and culturally constructed. They appreciate that representing and generalizing patterns and relationships enables them to make predictions and plans, and to analyze cause and effect relationships in their physical and social environments. Students learn that algebra is both a style of mathematical thinking for formalizing patterns, functions and generalizations, and a set of concepts and competencies tied to representing quantitative relationships. Students' ability to recognize, represent, generalize and use pattern is crucial to their mathematical development, and lays a significant foundation for how they continually use mathematics to interact with and make sense of their world

Students use algebraic symbols to represent patterns and functions with increased confidence as they move through the Middle Years. They transfer symbolic expressions that contain variables to verbal, tabular and graphical representations of patterns and relationships drawn from number, data and measurements. Students connect their experiences with linear functions to their developing understanding of proportion, and distinguish linear relationships from non-linear ones.

### **Measurement**

In the Middle Years students use measurement in their daily lives to explore questions related to their personal, family and wider community activities. Measurement provides them with opportunities to make connections with their physical and social environments; to connect their past with the present and make predictions about the preferred futures; and connect with other aspects of mathematics such as shape, structure, number and algebra. Measurement also provides students with a context to explore mathematics from a variety of cultural and social perspectives. They may explore measurement from a 'historical' and socio-cultural viewpoint and, more importantly, explore and compare how diverse cultures measure, what they choose to measure and why they measure.

### **Shape and Space**

Students continue to develop their spatial sense and geometric reasoning in the Middle Years through analyzing the characteristics of 2-D and 3-D shapes, using a variety of representational systems, and using transformations and symmetry. Each of these aspects provides them with opportunities to refine and communicate their understanding of spatial

relationships within, and between, shapes in their environment and their place in space. They develop a variety of strategies for representing these in a systematic way. Students in the Middle Years are able to visualize and represent spatial relationships and geometric aspects of their local and broader environment in more abstract ways, and use more geometric language in their descriptions. Representing and analyzing spatial features and relationships draws together aspects of number, measurement and algebra. Students use representations in many activities to arrange, build and design objects for specific purposes, better futures and functions; and to communicate about shape, structure, location and movement.

Building on their experiences in the Primary Years, students develop intuitive notions of points, lines and planes, and how these geometric concepts are linked with shape and structure. They refine their analysis of the key spatial features of 2-D and 3-D shapes and the relationships between these features. They develop increasingly systematic ways of describing, classifying and analyzing shape. Relationships within and between shapes involve proportions and measurements, either by simply matching sides or by exploring the scale of a reduction or enlargement.

Students use transformational geometry as another means to interpret and communicate shape and spatial relationships between shapes. Investigation of flips, slides and rotations, and how they relate to each other, enables them to explore congruent shape and angle relationships, while investigation of dilations enables them to explore similarity and symmetry.

### Data Handling

Middle Years students' experience with descriptive and predictive data enables them to explore, analyze and engage with social and environmental issues that are important to them and their communities. They use exploratory data analysis strategies to refine their ability to use representative samples, draw conclusions, make predictions/design futures and undertake individual and collective actions based on these. Students' explorations begin with complex questions that concern relationships among populations or samples, and relationships between two variables within a population or sample, and often lead them to pose alternative or refined questions to further their explorations. To achieve this students negotiate and broaden their repertoire of strategies to organize and represent data. They compare the impact of using the mean, median and mode to describe the middle of the data, and different ways of grouping the data to analyze its spread and bias. Students use scatter plots to explore and communicate possible relationships, and are introduced to box plots to compare characteristics, related sets of data or data that describes similar situations. They visualize how data might look in a preferred future.

Students in the Middle Years refine their understanding of chance and probability by analyzing situations that present a range of possibilities and strategies. They use rational number and comparative language to analyze and communicate the range of possible outcomes and their probabilities. As with their experiences with chance in the Primary Years, students collect, represent and interpret data to analyze chance situations. They use conclusions drawn from their analysis to inform their plans and actions, and are introduced to a range of strategies to model these situations.

## **Outcomes: Grade 6**

### **Whole Numbers**

- Add, subtract, multiply and divide with whole numbers, up to 4 digits
- Estimate/approximate whole number operations
- Handle large numbers (one million and beyond)

## **Number Properties**

- Calculate according to the order of operations
- Find factors of composite & prime numbers
- Identify prime factors
- Use prime factors to find lowest common multiple and highest common factor
- Calculate squares of numbers
- Show exponents as repeated multiplication

## **Fractions, decimals and percentages**

- Carry out operations (add, subtract, multiply and divide) with fractions and decimals
- Recognize the fraction bar as a symbol for division
- Compare, find equivalents and simplify fractions
- Find fractions of quantities
- Find the whole quantity from a fraction
- Express quantities as percentages of a whole
- Use a calculator to figure out percentages
- Express one quantity as a percentage of another

## **Algebra**

- Use the vocabulary of algebra (rule, formula, variable, equation, etc.)
- Use formulae and variables to write rules that describe patterns
- Solve simple algebraic equations

## **Data Handling**

- Organize data into frequency tables
- Use appropriate charts/graphs to display information: dot plot, bar, stem and leaf, pie, and line.
- Identify the mean, median and mode

## **Probability**

- Predict the likelihood of outcomes on the basis of a set of observations
- Estimate the relative frequency of events and mark them on a scale

## **Measurement**

- Estimate/approximate measurements
- Convert one metric unit to another (e.g. grams to kilograms)
- Read and interpret scales on a range of measuring instruments
- Understand the relationship between perimeter and area
- Calculate perimeter, area and circumference for 2-D shapes
- Calculate surface area and volume for 3-D objects
- Understand the difference between volume and capacity
- Understand how dimensions relate to geometric objects and are reflected in units of measurement (cm, cm<sup>2</sup>, cm<sup>3</sup>, etc)

## **Shape and Space**

- Create and use the coordinate system in all 4 quadrants
- Reflect, rotate, translate 2- D shapes in the coordinate system
- Recognize types of angles (revolution, straight, right, acute, obtuse, reflex)
- Use the properties of angles in triangles and quadrilaterals to find the measure of unknown angles
- Construct angles and triangles using only a compass and straight edge
- Learn and correctly use vocabulary for points, lines, planes, solids, polygons and circles

## Outcomes: Grade 7

### Whole Numbers

- Compares numbers and uses symbols (e.g.  $\approx$ ,  $( )$ ,  $\geq$ ,  $\leq$ ).
- Uses power or index (exponents) notation.
- Identifies large numbers in everyday use (e.g. comparing populations).
- Identifies factors, common factors, prime factors, highest common factor and lowest common multiple.
- Uses arrays and divisibility rules.
- Identifies cubic numbers.
- Applies square root to square numbers and uses the symbol  $\sqrt{\quad}$ .
- Multiplies a 3 digit number by a 2 digit number using the extended form (long multiplication).
- Divides a number with 3 or more digits by a single digit or multiples of 10 with a remainder expressed as a decimal.
- Understands the order of operations using (Brackets, Exponents, Division, Multiplication, Addition, Subtraction).
- Uses and explains appropriate strategies in problem solving (e.g. trial and error, working backwards, looking for patterns).
- Uses a calculator, when more appropriate, to solve problems (e.g.  $7243 \div 64$ ).

### Fractions, Decimals and Percentage

- Rounds off decimals to 3 places
- Divides decimals by a whole number (using a calculator).
- Multiplies decimal numbers by decimal numbers (e.g.  $0.2 \times 0.3 = 0.06$ ).
- Converts decimals to fractions (e.g.  $4.258 = 4258/1000$ ).
- Uses decimals in problem solving.
- Compares the size of fractions (e.g. 'Which is larger:  $2/5$  or  $1/3$ ?').
- Compares and orders fractions in ascending or descending order (e.g.  $1/3, 2/5, 7/8$ ).
- Adds and subtracts fractions with different denominators, including improper fractions and whole numbers.
- Multiplies fractions including whole numbers and mixed numbers.
- Converts fractions to frequently used decimals and percentages (e.g.  $2/5, 5/8$ ).
- Converts percentages to fractions and decimals.
- Converts fractions and decimals to percentages.
- Expresses fractions of quantities as percentages (e.g. 20 out of 25 is  $4/5$  is 80%).
- Finds simple percentages of quantities (e.g. 20% of €80) using both pen and paper and calculator.
- Finds discount as a percentage of a given amount of money.
- Solves practical problems involving Percentage and decimals (e.g. simple interest, banking problems).
- Compares quantities using ratios in problem solving.

### Algebra

- Investigates pattern rules in solving problems (e.g. rates charged by trades people 1 hr—€35, 2 hrs—€60, 3hrs—€95 =  $nx35-10$  for various hours worked).
- Investigates and analyses graphs showing the relationship between variables (e.g. analyzing winter rainfall patterns and making comparisons and predicting future trends).
- Uses inverse operations to solve a number sentence (e.g.  $2x = 8$ ,  $x = 8 \div 2$ )
- Applies algebraic formulae to practical problem solving.
- Uses / formulates equations with variables on both sides of the equation,

### **Length, Perimeter and Area**

- Converts between millimeters, centimeters, meters and kilometers (e.g. 25mm = 0.025m).
- Uses the formula Distance = Speed x Time to solve problems.
- Develops and uses the formula for the area of a triangle (e.g.  $A = \frac{1}{2} (B \times H)$  or  $L \times W / 2$ ).
- Uses the appropriate units of Measurement for area and volume (e.g. km<sup>2</sup>, cm<sup>2</sup>, m<sup>2</sup>, mm<sup>2</sup>, ha).
- Calculates the area of composite shapes by separating them into simple parts (e.g. rectangles and triangles as below).
- Uses scale in ratio form to calculate original size (e.g. explores different methods of estimating the area of an irregular shape, cube houses).
- Applies knowledge of perimeter, circumference and area through practical problem-solving activities.

### **Volume and Capacity**

- Converts mL to L and L to kL and vice versa.
- Uses the symbols cm<sup>3</sup>, m<sup>3</sup>, mL, L and kL.
- Demonstrates understanding of volume through practical problem-solving activities.
- Develops and uses formula for volume of rectangular prisms:  $V = L \times W \times H$  or  $V = L \times B \times H$ .

### **Mass**

- Chooses the appropriate units and tools to measure weight of a variety of objects.
- Identifies and converts volume and capacity measurements (e.g. 1kg = 1000g, 1t = 1000kg, 1g = 1000mg).

### **Time**

- Makes comparisons between time zones across Europe and calculates changes incorporating daylight saving.
- Reads and uses a variety of timetables.
- Constructs and interprets timelines using appropriate scales.

### **Temperature**

- Demonstrates awareness of the Celsius and Fahrenheit temperature scale.
- Uses online resources to compare current temperatures in different parts of the world.

### **Lines and Angles**

- Bisects angles using a compass.
- Draws a 2-D shape given a description of its side and angle properties, using geometric software or a ruler, protractor and set square.
- Uses the terminology of a circle: radius, diameter, circumference.
- Uses the angle properties of parallel lines to determine unknown angles: corresponding, alternate, allied and vertically opposite.
- Calculates unknown interior and exterior angles of a triangle.

### **2D Shapes and 3D Objects**

- Classifies solids in terms of their geometric properties (i.e. faces, edges, vertices and cross-sections).
- Draws 3-D solids.
- Identifies and names properties of polyhedra (e.g. tetrahedron, pentagonal prism, hexagonal prism).
- Constructs complex solids from nets (e.g. hexagonal-based pyramid).
- Recognizes the properties of quadrilaterals.
- Constructs, names and classifies scalene, isosceles and equilateral triangles.
- Identifies faces, vertices and edges of polyhedra and looks at relationships (e.g.

- Euler's formula).

### **Transformation**

- Translates shapes over a given distance (e.g. translates the shape 5 squares horizontally to the left on grid paper).
- Enlarges and reduces shapes using a scale.
- Creates tessellation using rotation, translation and reflection (e.g. using drawing software).
- Creates a complex tessellating shape by using translation, rotation or reflection to modify a simple shape.

### **Location and Position**

- Describes and draws what is seen and not seen from different views of 3-D objects (e.g. pyramids, prisms).
- Uses a scale to calculate the distance between two points on a map.
- Reads, writes and uses scales in words in problem solving.
- Produces scaled plans (e.g. classroom, bedroom) and responds to the question: What scales are used in commercial applications (e.g. buildings, orienteering maps, atlas maps)?
- Uses bearings and distance to describe a position (e.g. street directories, treasure maps).
- Follows simple directions to move from point to point on a given path, using maps, a magnetic compass and written and oral instructions.
- Develops a simple orienteering course.

### **Data collection and representation**

- Plans a range of ways to collect data (e.g. surveys, interviews).
- Records data using spreadsheets, and uses simple formulae to create graphs using graphing software.
- Interprets information from data, graphs and tables.

### **Chance and Probability**

- Assigns numbers and percentages to chance (i.e. if it has no chance of occurring it is assigned 0 or 0%; if it is certain to occur it is assigned 1 or 100%).
- Makes their own probability generator (e.g. a spinner to show  $P[\text{red}] = 2/5$ ).
- Assigns probabilities for given situations (e.g. 'Five discs are placed in a bag, two are blue and three are black. What is the probability of drawing a blue disc?').
- Tests predictions (e.g. coin tossing)

## **Language - Main**

The language curriculum outlines the understandings and skills learners need to acquire. Language is a resource for making and sharing meanings across the varied contexts of communication in the culture of any group of people. A functional model of language enables us to understand how language is shaped by the uses to which it is put and how it can be used to create and change these contexts of use.

As they move into and through school children and students learn about and draw on the potential of language so that they can gain access to powerful ways of making meaning. This includes learning to use and learning about language in speaking, listening, reading, viewing and writing.

Students in the Middle Years use higher order thinking and problem-solving skills to examine the language features of different texts. Typically they are now more independent learners involved in understanding and using language appropriately as they compose, comprehend and critically respond to more complex spoken, written and visual texts.

As they move through adolescence they also work out how to use language to express their changing self-image in relation to peers, adults, popular culture, the media and families.

## Reading

As students develop personal preferences and pursue the specific demands of reading and viewing in the Middle Years, they engage with a range of written and visual texts of increasing length and complexity. Texts such as popular literature, magazines and feature films are an important part of students' recreational and school life, and can be used to explore distinctive organizational elements and language features. For example, the effects of music, shot types and camera angle can be discussed when viewing films or cartoons. In becoming more aware of the world around them, and in examining futures issues, students now read and view to critically explore the ways information is organized in data-rich and factual texts. They are able to identify and discuss aspects such as main arguments, use of statistics, supporting evidence and conclusions in an argument. They become increasingly able to discuss and report on how vocabulary is used to create mood, and on the use of techniques such as paragraphs to structure a text.

### Grade 6 students will:

- Use research and study skills and
- Know how to locate resources for a given task and find relevant information in them, *e.g. skimming, use of index, glossary, keywords etc.*
- Use appropriate reading strategies to extract particular information, *e.g. highlighting and scanning*
- Make brief, clearly-organised notes of key points for later use
- Appraise the value and relevance of information found and acknowledge sources read for meaning
- Adopt active reading approaches to engage with and make sense of texts *e.g. visualising, predicting, empathising and relating to own experience*
- Identify the main points, processes or ideas in a text and how they are sequenced and developed by the writer
- Infer and deduce meanings using evidence in the text, identifying where and how meanings are implied
- Comment, using appropriate terminology on how writers convey setting, character and mood through word choice and sentence structure
- Recognise how writer's language choices can enhance meaning, *e.g. repetition, emotive vocabulary, varied sentence structure or line length, sound effects*
- Recognise and understand figurative language *e.g. similes, metaphors and idioms*
- Use specific vocabulary to comment on and analyse poetry *e.g. line, couplet, stanza, rhyme scheme*
- Read a range of recent fiction texts independently as the basis for developing critical reflection and personal response *e.g. sharing views, keeping a reading journal*
- Give a considered response to a play, as script, on screen or in performance, focusing on interpretation of action, character and event

### Grade 7 students will:

- Read fiction texts individually for enjoyment, extending personal tastes and interests
- Read non-fiction (*e.g. biographies, letters to the editor, webpages, CD-ROMs, historical accounts examining a point of view or exploring a specific topic*).

- Identify and analyze with greater independence, ideas, values and beliefs about abilities, gender, race and culture embedded in texts.
- Understand the need for specific terms (e.g. appropriate terms, precise descriptors, adjectives and adverbs, adjectival and adverbial phrases) to enhance description.
- Understand the function of appropriate punctuation, observing it when reading aloud (e.g. commas, full stops, exclamation marks, question marks, colons, semi-colons).
- Develop character portraits indicating the accumulation of information about characters as the text unfolds.
- Understand content by:
  - paraphrasing the story or text,
  - analyzing characters
  - comparing or contrasting two characters
  - explaining why an event occurred
  - making a story map of a text
  - formulating questions for group discussion (e.g. interpretive or open-ended form).
- Use some of the following strategies:
  - silent sustained reading
  - guided reading
  - reading a class/group novel
  - reading contracts with a variety of related activities to analyze the text
  - borrowing from a resource centre/library, selecting texts independently and managing time and requirements for assignments.

## Writing

To communicate effectively with their peers and others in the school and wider community, students now use language appropriately to construct more complex and coherent written texts. They increasingly gain control of the organization and features of language in order to present their personal voice, sequence ideas and convey information. They make choices about the most appropriate way of presenting their text (e.g. using graphics, artworks, photographs or multimedia). Students manipulate sentences and ideas to organize texts and influence audiences. They are comfortable with technologies and their potential, and use a computer to experiment with the organization of their writing by rearranging sections of the text.

### Grade 6 students will:

- Use the *writing process* appropriately (group discussions, brainstorming, webbing, planning, drafting, revising and editing, proofreading and presenting a text,) with readers and purpose in mind
- Use writing to explore and develop ideas *e.g. journals, brainstorming techniques and brain mapping techniques*
- Structure a story with an arresting opening, a developing plot, a complication, a crisis and a satisfying resolution
- Organise texts in ways appropriate to their content *e.g. by chronology, priority, comparison*, and indicate this clearly to the reader
- Use a range of modes in writing: narrative, descriptive, persuasive, expository
- Express a personal view, adding persuasive emphasis to key points *e.g. by reiteration, exaggeration, repetition, use of rhetorical questions*
- Use a fluent and attractive style of handwriting and set personal targets to improve presentation and show competency in word processing
- Use resources independently (e.g.. computer spell check, rhyming dictionaries, math dictionary, thesaurus).
- Use spelling strategies and rules
- Complete a bibliography to list resources

- Write reflectively about a text

### **Grade 7 students will:**

- Compose a range of texts incorporating text features (e.g. recount, narrative, procedure, report, exposition, explanation).
- Select and use a variety of sophisticated language elements and displays these by:
  - sequencing events with greater detail
  - using chapters and sub-headings
  - using paragraphing with elements to ensure cohesiveness
  - including quotations, acknowledgments and footnotes
  - varying sentence beginnings
  - using synonyms and antonyms,
  - drawing on language for effect by using clichés, metaphors and similes
- Maintain consistent tense.
- Use complex sentences
- Combine clauses to form more complex sentence structures.
- Use extended noun groups, adverbial and adjectival phrases and clauses to clarify and enhance meaning.
- Punctuate broken quotations accurately.
- Use direct and indirect speech.
- Write a poem expressing the views of a character or about an event,
- Role-play characters
- Write a chapter that comes before or after the text.
- Edit and proofread using a variety of strategies including a checklist
- Use resources independently (e.g.. computer spell check, rhyming dictionaries, math dictionary, thesaurus).
- Use spelling strategies and rules
- Use self- correcting strategies
- Understand and use a variety of sentence structure (subject, verb, object...)
- Understand and use proverbs and idioms
- Use punctuation such as interrupted direct speech marks, capitals, colons, semi-colons and apostrophes of possession.
- Publish and present work using methods to suit the purpose (e.g. *PowerPoint* displays, web pages).

### **Oral language**

In a supportive and collaborative environment students listen to spoken texts of varying length and complexity, and examine and respond to the language features of these texts. They discuss the different features of spoken and written texts, including aspects of density and grammar. In small, whole group and team situations students plan and speak for more extended periods of time and consider the needs of various audiences. They consider situations where informal or formal use of language is appropriate, or acceptable. They understand that they can influence audiences through the use of body language, intonation, vocabulary, pausing, timing and rhythm when presenting spoken texts.

### **Grade 6 students will:**

- Use verbal communication as a tool for clarifying ideas, *e.g. by articulating problems or asking pertinent questions*
- Tailor the structure, vocabulary and delivery of a talk or presentation so that listeners can follow it
- Give clear answers, instructions or explanations that are helpfully linked and supported by gesture or other visual aids

- Promote, justify or defend a point of view using supporting evidence and example which are linked back to the main argument
- Listen for and recall the main points of a talk or reading, reflecting on what has been heard to ask searching questions, make comments or challenge the views expressed
- Answer questions pertinently, drawing on relevant evidence or questions
- Identify and report the main points emerging from discussion, *e.g. to agree on a course of action including responsibilities and deadlines*
- Adopt a range of roles in discussion, including acting as spokesperson, and contribute in different ways such as promoting, opposing, exploring and questioning
- Acknowledge other people's views, justifying or modifying their own views in the light of what others say
- Show an active interest in and respect for other languages
- Understand how language can influence points of view and the behaviour of others
- Infer meanings, draw conclusions and make objective judgements

### **Grade 7 students will:**

- Examine the text for its purpose by; responding to spoken texts to further clarify meaning, including debating issues, stereotyping/ bias within texts, classifying reporting as objective or subjective
- Interpret a variety of texts for purpose and effect including stories, legends, myths, fables and traditional stories.
- Evaluate and assess an oral presentation using a teacher, group or self-generated proforma,
- Produce a range of spoken texts about topics, events and more complex issues, discussions with supportive evidence, give formal presentations within an area of study or interest,
- Analyze and evaluate specific aspects of spoken language by recognizing that language varies according to audience and purpose (e.g. reporting styles used for news, documentaries, visual and non-visual entertainment)
- Use correct language structure to suit context and audience, including use of:
  - consistent tense, pronouns, links and conjunctions
  - topic specific terms,
  - deliberately choosing and using gestures
  - having effective control of body language
  - engaging audience with appropriate body positioning.
- Respond to spoken text to further clarify meaning by:
  - questioning a speaker to ascertain intent and to enable elaboration
  - structuring questions to obtain precise information
  - planning a peer evaluation to assess an oral presentation
- Evaluate own performance by reflecting, using checklists, using rubrics.

### **Language - Additional**

The approach to English and German teaching incorporates flexibility in keeping with the needs of the students. Positive reinforcement is seen as being a prime motivator. Context related, authentic learning situations make learning more meaningful and therefore more successful. As a result, the additional language content is linked to the units and major subject matter being studied in the classroom. While a whole language approach is favoured, there is also a place for skills exercises, especially in the Middle Years, to aid in the development of understanding. An active approach, through dialogues, games and some language drills, supports the students in their basic learning strategies. Though much of the additional language support work is oral, students in grades 6 & 7 are exposed to more writing and reading activities to complement the classroom studies. Students are also taught

language functions which are relevant to their communication needs such as describing, giving and following instructions, making inquiries, asking questions and expressing ideas and opinions. By the Middle Years, more formal grammatical learning is introduced to support student understanding of the structure of the additional language.

### Overview of the Key Features of the 8 phases of the Additional Language Continuum

Phase	Oral	Reading	Writing
<b>New to A.L.</b>	receptive, responses in main language or non-verbal "silent phase," focus on BICS (Cummins)	reads some environmental print, recognizes some personally significant words	communicates familiar contexts/personal experiences by drawing pictures or by copying writing
<b>Early Acquisition of A.L.</b>	starts to produce single words, formulaic phrases in A.L., focus on BICS (Cummins)	reads short, simple texts with simple repetitive vocab. and picture cues, set in familiar contexts	writes short, simple texts either copied or modeled with peer/teacher support on personally significant experiences
<b>Becoming Familiar with A.L.</b>	starts to produce/use language (short phrases) in personal/familiar contexts, focus on BICS (Cummins)	reads short, simple texts in familiar contexts	writes short, simple texts on personally significant contexts using models and beginning understanding of spoken and written language
<b>Becoming Competent in A.L.</b>	starts to develop competencies in CALP (Cummins), begins to use and understand subject area language	begins to read controlled, simple familiar as well as unfamiliar texts with predictable, simple language structures	begins to use A.L. to write about academic contexts using simple language structures, writes short texts on familiar contexts using simple language structures
<b>Competent in A.L.</b>	develops competencies in CALP (Cummins), gains more competence in using A.L. in academic contexts, spoken language in advance of literacy	reads controlled familiar and unfamiliar texts with simple, predictable language structures and familiar vocab.	begins to develop competency at writing short, organized texts of different types, using simple sentence structure and specific vocabulary
<b>Proficient in A.L.</b>	develops proficiency in CALP (Cummins), begins to use more complex language functions in academic contexts, uses A.L. with increasing confidence in social and academic settings	begins to read mainstream materials with more complex language structures	begins to write organized texts of different types, using more complex language structure and specific vocab.

<b>Advanced Proficiency in A.L.</b>	extends proficiency in CALP (Cummins), uses complex language functions in academic contexts, uses A.L. confidently, nearly fluent	reads wide range of mainstream materials	writes more organized texts of different types with more cohesion and coherence
<b>Fluent in A.L.</b>	oral skills in A.L. equal to oral skills in main language, e.g. bilingual	reading skills in A.L. equal to reading skills in main language, e.g. biliterate, spoken skills equal to literacy skills in A.L.	writing skills in A.L. equal to writing skills in main language, e.g. biliterate, spoken skills equal to literacy skills in A.L.

## Science

Middle Years students will develop their observational skills by using their senses and selected observational tools. They will gather and record observed information in a number of ways, and reflect on these findings to identify patterns or connections, make predictions and test and refine their ideas with increasing accuracy. Students will explore the way objects and phenomena function, identify parts of a system and gain an understanding of increasingly complex and effective relationships. They will examine change over time and recognize that change may be affected by one or more variable. They will be aware of different perspectives or ways of organizing the world and will be able to consider how these views and customs may have been formulated. Students will use their learning in science to plan positive and realistic action to improve their welfare and that of other living things and the environment. They will communicate their ideas or provide explanations using their own specific experience and will look critically at the views of others to refine their ideas, and they will grow to appreciate the history and development of the subject science.

Scientific inquiry will challenge the students to acquire and apply the following skills:

- consider early scientific ideas, including how experimental evidence and creative thinking have been combined to provide scientific explanations
- use scientific knowledge to decide how ideas and questions can be tested and make predictions of possible outcomes
- identify and control the key factors that are relevant to a particular situation
- select and use appropriate equipment, including information technology, to make observations and measurements correctly, e.g. 1°C or 1 Newton
- use repeat measurements to reduce error and check reliability
- present and interpret experimental results through the routine use of tables, bar charts and simple graphs, including line graphs
- describe and explain what results show when drawing conclusions; begin to relate conclusions to scientific knowledge and understanding
- evaluate the strength of evidence, e.g. in bar charts and graphs; indicate whether increasing the sample would have strengthened the conclusions

Environmental understanding in science also develops an appreciation of the environment and an understanding of the fundamental elements of some basic global environment issues.

Students will:

- understand that the resources of the world are finite and be aware of alternative forms of transport, heating etc.
- use the local transport system as appropriate

- be aware of pollution issues in Germany
- have an understanding of people's interdependence with the environment
- be aware of the advantages and possible drawbacks of recycling
- be aware of the existence of world and local associations dealing with environmental problems
- recognize and understand the negative effects of overexposure to sun, noise and pollutants
- be aware of consumer protection laws
- be aware of the power of persuasion in media advertising

## **Humanities**

Humanities consists of a broad range of traditionally separate subjects, such as: geography, history, economics, politics, civics, sociology, anthropology and psychology.

Within the aims and objectives of this subject, there are concepts that students must address and skills that must be developed over the course of their studies. These are:

- the concepts of time, place and space, change, systems and global awareness
- technical, analytical, problem-solving and investigative skills

The primary aim of a humanities course is to develop the understanding and application of concepts and skills rather than prescribe and assess content.

In the Middle Years, student will:

- use appropriate geographical and historical terminology
- have a concept of history and how this affect the present and future
- formulate questions
- research independently and present the results coherently
- make links between causes and effects of change
- recognise that there is a difference between fact and opinion
- develop an attitude of open-mindedness towards the value of evidence
- reflect critically
- know how people can affect the environment positively and negatively
- show care and respect for the environment

Within the study of humanities students develop a cultural understanding which focuses on the respect for and valuing of all cultures by fostering positive experiences relating to people, including their languages, lifestyles, customs and religions.

Students will:

- have a basic knowledge of the tenets and traditions of some of the world's major religions and philosophies
- develop and show respect, tolerance, empathy and appreciation for their own and other cultures and faiths

## **Visual Arts**

In the Middle Years students will:

- continue to develop their skills of observation and seek out a variety of resources
- be confident in the everyday use of sketchbooks for recording observations, ideas, pattern and colour
- choose the appropriate materials for the task and build on previous skills and experiences in using a variety of materials

- develop the skill of looking at artworks and artefacts of different periods and be able to draw conclusions and make predictions about their function
- work well both alone and in groups and be sensitive to the work of others, suggesting modifications and discussing reactions constructively
- become aware of the elements and principles of design and develop a more critical stance to their own environment

Building on their existing skills, students will further develop the ability to:

- observe both the natural and man-made world closely and to use first-hand source materials
- use sketchbooks as everyday tools for recording ideas and observations
- make sensitive and informed choices of materials appropriate to the task
- develop sensitivity, skill and understanding further when mixing paint colours
- extend drawings and sketches where appropriate, with other materials to show different elements (feelings, patterns, colours)
- reflect upon own work and that of peers and discuss intentions and possible modifications
- look after tools and materials and be aware of safety implications and the need for an organised approach to work
- develop a critical awareness of the local environment
- develop a sense of chronology of art history
- look upon art work as a method of communication and as an expressive language

## **Music**

Students in the Middle Years experience a wide range of songs in different languages and from different style periods and perform them with sensitivity and accuracy. They perform on classroom instruments as well as their own and continue to develop ensemble skills. They create their own music as well as interpret the music of others through the understanding of notation. Building on their existing musical skills, students will further develop their abilities in the following areas:

Performing: singing and playing instruments

Students will:

- sing more complex songs with increasing accuracy, including:
  - singing accurate note pitches and lengths
  - being aware of dynamics
  - using appropriate singing style
  - singing songs from different times and cultures
- play both percussion and melodic instruments with increasing accuracy
- perform complex rhythmic and melodic patterns in different meters of two, three, four and six
- sing or play music using graphic or traditional notation

Creating/composing

Students will develop the ability to:

- create music in response to a range of stimuli
- experiment with sounds to create musical effects
- explore, create, select and organize sounds in increasingly complex musical structures
- record and communicate musical ideas through more complex notation systems

## Listening

Students will develop the ability to:

- distinguish and describe musical elements such as rhythmic patterns, melodic patterns and form
- distinguish a range of instrumental sounds, including orchestral and non-Traditional sounds
- listen attentively and respond to music of different styles, times and cultures, using appropriate vocabulary

## Drama

Through role-play older students acquire an emotional and conceptual understanding of the areas being studied. Students make active connections between imaginary and real-life situations.

Students develop an awareness of audience and the importance of self-discipline in the presentation of materials to an audience. They are introduced to simple elements of production – costume, set, lights, props – to help them present their work effectively. Students also begin to bring text to life using a variety of conventions. Through various exercises, they continue to explore the way the body and voice can be manipulated to depict a character, an emotion or a concept. They work towards creating a healthy group dynamic, where they feel comfortable about making suggestions on how their work and the work of others can be developed. It is important that they learn to apply constructive criticism in the development of their work.

Using a journal becomes an important feature of reflection and evaluation of their work, to record ideas, discoveries and the subjects being addressed.

Students are introduced to performance conventions from other cultures if possible and are given the opportunity to practise them in their dramas. Where possible, they should be exposed to a variety of performance and presentation experiences which they are encouraged to discuss and evaluate, to identify what was effective and begin to transfer these discoveries to the presentation of their own work.

Middle Years students will develop further, the ability to:

- develop drama techniques to explore a variety of situations and texts or respond to stimuli
- use role-play to view a situation from the perspective of another person
- bring text to life, for example, poetry, prose, plays, pictures
- work collaboratively to devise and present scripted and unscripted pieces, which maintain the attention of an audience
- extend their spoken repertoire by experimenting with language in different roles and dramatic contexts
- experiment with voice, body and gesture to create and portray a character and sustain role in a given situation
- work co-operatively towards a common goal, taking an active part in the creation of a drama
- develop drama techniques and strategies for anticipating, visualising and problem-solving in different learning contexts
- reflect on and evaluate their own performance, identify how their work and the work of others can be developed and accept and apply constructive advice

## **Technology**

In the Middle Years, technology is essentially concerned with solving problems in an effort to stimulate ingenuity and to encourage students to combine intellectual talents and practical skills. Technology units will focus on one of the following areas: systems, information, materials.

Students are encouraged to display ingenuity and creativity in devising practical solutions to given tasks. Using a cycle of design, student will:

- investigate
- design
- plan
- create
- evaluate

They will also develop an awareness of the social and ethical implications of technological development.

Skills learned in other disciplines can be reinforced in technology, especially the presentation and handling of data and the processes involved in the design, costing and manufacture of a product.

## **Physical Education**

Students will discover the capabilities of their bodies and the variety of ways in which they are able to use their bodies to solve problems, address physical challenges, function as part of a group, manipulate equipment or apparatus and express themselves kinaesthetically in a range of situations. They will be exposed to a number of activities which will develop motor skills that may later be applied in various sports and they will be introduced to a healthy and active lifestyle and ways to exercise for fitness.

Adventure challenge

- solve challenging problems individually or with a partner
- participate in group activities to accomplish a common goal

Athletics

- practise specific techniques for running, jumping and throwing
- understand the importance of safety
- evaluate their athletic performance and understand how to improve performance
- learn how to collect and record results

Dance

- travel in different ways with body control changing speed and directions
- hold their body weight in stillness and in movement using various body parts as bases
- respond to a range of stimuli to express feelings, moods and ideas in movement

Games

- handle different apparatus using different body parts
- participate in developing innovative games
- co-operate and compete with peers within a set of given rules

Gymnastics

- demonstrate movement, manipulation, balance and spatial awareness to develop physical agility, flexibility and co-ordination

Health-related exercise

- identify the elements that make up a healthy lifestyle and recognise the benefits of each
- increase their physical activity and fitness

- demonstrate safety when exercising
- recognise the basic changes that occur to their bodies when exercising

## **Personal and Social Education**

Students will show confidence, initiative and self-direction through their actions. They will follow classroom rules and routines and act with responsibility and independence, using coping strategies to manage a range of feelings and situations. They will show initiative and personal investment as learners, set personal goals and be self reflective. Approaching tasks with flexibility and inventiveness and sustaining attention over a period of time are qualities that will be nurtured in the students. They will consider others' feelings and viewpoints and use discussion and compromise to resolve conflicts, seeking help and using suggestions when unable to resolve them independently. They will show familiarity with and knowledge of current issues related to health and safety and will use problem-solving methods and make decisions that promote personal well-being.

**Self Concept:** the set of beliefs, attitudes and feelings that students have about themselves, students will learn to:

- take responsibility for their own feelings
- use various coping strategies (e.g. confronting, challenging, leaving, questioning)
- understand the difference between desires and rights
- understand the difference between rights and responsibilities
- accept and value individual differences
- evaluate criticism of themselves and respond appropriately
- test and discuss different opinions and points of view
- set personal standards and goals
- make independent choices regardless of peer pressure

**Safety:** the study and practice of safe behavior, students will:

- recognize and be aware of the need for safety rules and procedures
- be aware of the action to take and know how to access help in an emergency
- demonstrate responsibility in personal safety and the safety of others
- be introduced to simple first aid

**Organization for Learning:** making independent choices of materials, activities and work or play partners, students will:

- take responsibility for completing assigned tasks
- complete work that requires time out of school
- pursue the investigation and exploration of a special area of interest in some depth
- participate in some form of school service
- make a plan for a long-term project and work it through
- test and discuss different opinions or points of view
- evaluate their own work and recognize personal strengths and weaknesses
- present with confidence, in front of an audience
- debate issues that address social or political issues in the world

**Interaction with Others:** develops co-operative skills and an understanding of effective ways of dealing with conflict: Students will:

- accept responsibility for their contribution to interpersonal problems
- listen without interrupting during a conflict

- negotiate with one another by using words to defend their personal rights and beliefs and by considering the feelings of the other person
- understand social and peer pressures and develop coping strategies

**Notes on Homework:** In the Middle Years at BaSICS, any homework assignments which a student needs to complete or work on at home will be extensions of classroom work, generally not new material. We expect students to work on these assignments on their own, using the background knowledge, which they have received in the classroom. If for any reason, a student is having difficulty working on such an assignment, it is better to stop working on the assignment and discuss the matter with the teacher the next day than completing it incorrectly or using the wrong technique. Homework assignments should positively reinforce what has been happening in the classroom, not be a source of anxiety for the students and parents. At the Middle Years level, students can expect to have about 60 minutes of homework per day. In addition, we encourage all students to read a variety of books and written materials to broaden his general knowledge and language experience.

**Notes on Differentiation:** Differentiation means being able to provide students access to learning at a level appropriate to their conceptual ability. In a mixed classroom situation, we also differentiate between the grade levels in our expectations of how the students complete tasks (writing fluency and essay structure, for example), work problems (math, science), approach experimentation and lab work (science), handle research work (humanities, science), analyze texts (language), develop works of art, perform musically, and approach and give answers to questions (all subjects). These expectations are set out in our outcomes for the two grade levels and will be clearly delineated in rubrics used for assessment on specific tasks.

Being in a classroom where differentiation is a key component also offers the unique opportunity to students to be teachers as well as learners. Allowing students to teach what they know to their fellow students is one of the best ways to solidify and deepen their own understanding of a particular concept or skill.

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