Realignment of Curriculum

MEMORANDUM

TO: DR. ENID HUNTER
EXECUTIVE DIRECTOR, CURRICULUM /INSTRUCTIONAL SUPPORT

FROM: WALDORF CHARTER SCHOOL ACADEMIC POLICY COMMITTEE

SUBJECT: REALIGNMENT OF CURRICULUM

Following our meeting with you on November 24, 2004 we went to task to realign our curriculum with the Anchorage School District Performance Standards for Language Arts and Math. Through further research we found Waldorf Curriculum Standards (www.whole.org/waldorfstandards.htm). In reviewing the standards we found that, in fact, we meet the standards in all areas except for four. Here is what we are doing in those cases.

ANCHORAGE SCHOOL DISTRICT	WALDORF CHARTER
READING 1.2 Demonstrate a working knowledge of skill and strategies while reading [recognize patterns and sounds of vowel digraphs, patterns and syllabication].	We will use a phonetic approach to reading and introduce consonants, vowels, digraphs and word families. Students will read words and simple sentences from the board and write them in their main lesson books. Through this exercise, and with instruction by the teacher, they will become familiar with syllabication.
READING 1.3 Demonstrate understanding and confirm the meaning of text by utilizing the three cueing systems [check to see if it sounds right, looks right and makes sense].	We will use the exercise of reading from the board and copying words and short sentences into main lesson books as an opportunity to familiarize the child with the cueing system. This exercise will progress from being led by the teacher to being lead by the student.
ORAL LANGUAGE 2.3 Continue to expand listening and speaking vocabularies [ability to identify and use synonyms and antonyms in oral communication].	The concepts of synonyms and antonyms are taught through the regular exposure to language through literature, poetry and speech exercises beginning in kindergarten.
4.4 COMPUTATION Use a calculator when appropriate.	Students will do independent computations until 7th grade when the calculator is introduced. This is to ensure strong math skills.

CURRICULUM

ENGLISH & LANGUAGE ARTS K-8

Kindergarten:
Anchorage Public Waldorf School's Kindergarten is designed to lay a strong foundation for the formal academic curriculum of the later grades. The language arts component focuses on oral story telling, helping pupils acquire the listening and speaking skills crucial to the reading and writing success. Music, games, and finger plays develop rhythm and counting skills. Hands-on activities such as gardening and cooking introduce science, math, and geography skills, concepts, and vocabulary. Weekly walks and a nature table develop and encourage a sense of understanding and appreciation for the natural world. At this developmental stage, the children require a program that allows for play, movement, and social interaction. APWS will cultivate creativity, imagination, and initiative through the serious and vital activity of play. Kindergartners learn good habits of memory, attentiveness, and orderliness through daily, weekly, and yearly activity rhythms such as circle time (which includes storytelling, songs, reenacting stories, etc.), free play, cooking, cleaning, carpentry, arts, beeswax modeling, drawing, and watercolor painting. Meals are rituals of care and attention to food and ambiance. Allowing children's imagination to develop in kindergarten prepares them for the high level of cognitive thinking required in the higher grades. Our intention at the Anchorage Public Waldorf School is to keep the kindergarten a play-based environment.

1st Grade:
Language Arts continues in first grade with a pictorial and phonetic introduction to letters. Initially the aim is to lead the children to experience the qualities of the spoken sounds and sentence melody, while the shape, name and meaning of the capital letters are taught. By allowing the shape of a letter to emerge from a picture that stands for the character of the sound, the children can develop their own relationship to the individual letters and later to the whole activity of writing. The children create their own illustrated books as each letter is presented. Consonants are evolved out of pictograms, vowels out of interjections and expressions of feeling. This process is accompanied by much phonetic work in songs, poems and games that help establish a joyful and living experience of language.

Oral work plays an important role in the class with equal emphasis on both speaking and listening. Good skills at both are prerequisites for the development of literacy skills. As well as the daily recitation of poetry and verses, many of which are designed as speech exercises to strengthen pronunciation and articulation, the children are encouraged to describe their experiences and recall the stories they have heard. Speaking and listening. Good skills at both are prerequisites for the development of literacy skills. As well as the daily recitation of poetry and verses, many of which are designed as speech exercises to strengthen pronunciation and articulation, the children are encouraged to describe their experiences and recall the stories they have heard.

The children learn to recognize and memorize symbols with lots of practice involving movement, verses, drawing, and writing. During the first year the class acquires the good habits of classroom life and work which will form the basis of their time together in the early grades and indeed for all subsequent learning at school. The teachers aim to lead the children into becoming a socially cohesive group who care for and listen to each other.

When the children have mastered the sounds of the letters and can name and write them, they are ready for their first reading experience. An integrated combination of whole word, phonic and contextual methods is used to develop reading, though with an emphasis on whole sentences/whole phrases. Comprehension will be emphasized from the beginning. Words will

not be presented in isolation, but integrated into sentences and stories that are meaningful to the child. The episodes of a story are illustrated by a series of pictures drawn on the blackboard by the teacher and in notebooks by the children. The class composes short descriptive sentences to accompany each picture. The wording is then copied from the teacher's model. Through these activities the children learn word and sentence structure without conscious effort and from their own writing, they learn to read.

We draw on the strong need of the first grader to move, and we accompany the speaking of poems and verses with steps and meaningful gestures. Literature, poetry, and oral storytelling, integrated into the curriculum, will present plants, animals, the seasons and the elements in an imaginative context. This provides a stimulating segue into later, more advanced investigations of the natural and physical sciences and also provides a rich medium for the students development in the art of listening, speaking and writing.

Formal reading instruction will begin in First Grade. Anchorage Public Waldorf School is in agreement with many educators that find that reading problems can be created by forced early instruction. The best reading programs are those that emphasize all aspects of language, including phonics, vocabulary development and oral language (poetry, song, and storytelling). Comprehension will be emphasized from the beginning. Words will not be presented in isolation, but integrated into sentences and stories that are meaningful to the child. APWS will use poems, verses, and songs that the children have recited and memorized as their first "readers". It is APWS's contention that good reading involves more than learning to "decode" words, and that a broad base of mental growth is necessary to take reading beyond a hollow exercise. First experiences in reading will also be accompanied by exposing the class to rich and complex oral language structures. As the children hear narrated stories, their power to form internal mental pictures and images provides the basis for their later ability to read with comprehension. This ability to form visual imagery while listening to a story constitutes an important visual and verbal linkage. Imagery, while listening to a story constitutes an important visual and verbal linkage.

By the end of First Grade, students:
o Recite in chorus, in contexts including short plays, simple speech exercises and tongue twisters, short verses, and multiplication tables. Some may recite individually—as in 'birthday verses'.
o Retell scenes and events from stories told by the teacher.
o Share experiences with the class.
o Follow verbal instructions given by the teacher.
o Draw, paint, model, or otherwise artistically represent the content of stories they've heard in class.
o Understand that writing is a symbol for speech
o Recognize sounds, shapes, and names of all vowels and consonants in capital letters and most of the lower case letters
o Distinguish vowels from consonants
o Recognize initial sounds and become familiar with digraphs 'th,' 'ch,' and 'sh.'
o Become familiar with common word families
o Read familiar words and sentences out loud from the board or Main Lesson books.
o Spell a few very familiar words
o Copy words and sentences correctly from the board
o Know that writing moves from left to right and from top to bottom
o Understand and use spacing to separate words
o Understand and use periods at the end of a sentence and capitalization at the beginning
o Write a few simple things independently

2nd Grade:
The second grade builds upon the foundations laid in the first grade. While much of the same approach is still followed, learning with movement, imagination, and color, additional themes are woven into this year. Poems are recited in chorus as well as spoken solo in front of the class. Short poems are enacted or accompanied by gesture. The pupils retell stories they have heard and the experiences they have had. Speech and articulation exercises such as tongue twisters are practiced. Fables, legends of saints and heroes, local folklore and stories concerned mainly with animals and the local environment are the story material. In their content these reveal a broad scale of human activity and relate to the natural world. The stories are told and listened to several times before the class engages in conversation several days later. While fables satisfy the children's deep interest in the animal kingdom, legends highlight the noblest human qualities. These fables and legends form the basis of the classes' reading and writing.

Reading
The pupils continue to practice reading with texts they have written themselves. A differentiated approach is used including whole class reading, child to adult, child to child and solo reading. There is regular practice in the recognition of auditory, visual and kinesthetic patterns through teacher led exercises. Spelling is based on a whole language approach reinforced by contextual and kinesthetic exercises with an emphasis on phonics. Word games and simple readers are also introduced in grade 2.

Writing
The transition to lower case cursive script is prepared by suitable form drawing exercises. The content of written work is related to the main lesson themes and the pupil's own experiences. About a third of the writing is composed by the pupil and the other two thirds comprising texts prepared by the teacher and copied from the board or dictated by the teacher. The children learn cursive writing by joining up the printed letters of last year.

Grammar
Grammar is introduced kinesthetically by acting out stories in which the children can experience the contrast between doing words (verbs), naming words (nouns) and describing words (adjectives and adverbs). Punctuation is taught on the basis of the spoken rhythms which indicate when the sentence starts, finishes, or pauses.

By the end of second grade, pupils:
o Recognize, write and read printed letters and cursive script
o Have familiarity and practice with word families
o Learn to read and spell letter combinations in common words including: sh, th, ch, wh, ph, gh, wr, kn ee, oo, ei, ea, ai, igh, oa, ui, ow
o Work with word endings, such as ly, ing, er, able, ed, est, ness
o Work with word beginnings, such as un, in, ex, re
o Read, write, and spell days of the week, months, numbers, and other commonly used words such as was, were, are, said, their/there, have.
o Have increased skills in word recognition and sounding out
o Use of context clues to guide understanding
o Read out loud, in chorus, and individually
o Read with developing enthusiasm, read teacher-created books and their own books with basic skills in comprehension, fluency, and expression
o Read simple stories on their own for pleasure

Writing Skills
o Spell using 3 letter blends
o Students help compose a class summary of a story they've heard

o Begin composing little summaries of things they have done as a class
o Students write short descriptive or narrative accounts, based on stories they've heard or recent experiences.
o Create own books with stories or poems copied from the teacher
o Use initial capitalization, periods, and question marks

3rd Grade:
Reading
In Grade 3 reading expands to a differentiation of reading material and reading for different purposes i.e. to understand tasks, to find information and to read timetables. Children are encouraged to use reference material and regular reading lessons are introduced. Children are directed to a wide range of reading material according to ability. Reading aloud is practiced with an awareness of content and punctuation. As in grade 2, a range of reading techniques is used including whole class reading, group reading, individual reading, and paired reading. In Grade 3 reading expands to a differentiation of reading material and reading for different purposes i.e. to understand tasks, to find information and to read timetables. Children are encouraged to use reference material and regular reading lessons are introduced. Children are directed to a wide range of reading material according to ability. Reading aloud is practiced with an awareness of content and punctuation. As in grade 2, a range of reading techniques is used including whole class reading, group reading, individual reading, and paired reading (child to child, child to adult). The emphasis is on 'real' books and quality literature.

Oral work plays an important role throughout the classes with equal emphasis on both speaking and listening. Good skills at both are prerequisites for the development of all literacy skills. As well as the daily recitation of poetry and verses, many of which are designed as speech exercises to strengthen pronunciation and articulation, the children are encouraged to describe their experiences and recall the stories they have heard. The teacher's own language serves as a model for the use and form of spoken language. This emphasis on oral work provides a basis for the subsequent understanding of grammatical structures and punctuation. It is important that the child experience how the printed word arises out of the spoken word and becomes alive again through reading.

Grammar
The work on writing, reading and speaking and listening in the first two grades provides a basis for introducing children to a systematic exploration of grammatical qualities in grade 3, starting with nouns, verbs, adjectives and adverbs. Grammar awakens living rational thought, the awareness of a qualitative difference between words that are 'naming', those that are 'doing', and those that are 'describing'.

Writing
With the introduction of cursive script, the children's writing begins to become more individual. Emphasis is placed on well-formed, legible writing. The child has the task of making sure that what is written looks beautiful. The reason for writing beautifully is to express respect for the person who will be expected to read it by presenting him or her with clear, well formed letters and word-shapes. The children are encouraged to write longer, more complex compositions based on main-lesson themes and their own experience. Out of the emergent writing of the children the teacher takes up the issues of grammar and correct usage, sentence structure, punctuation, spelling, etc., and provides instruction and guidance as opportunity presents itself.

Spelling
We will encourage pupils to read aloud and clear speaking is important for good spelling. Pupils will practice spelling systematically through guided word recognition, word families, similarities and letter combinations.

By the end of Third Grade, most children of normal ability range will be able to:
Integrate Reading Skills
o Read out loud, at times together, at times individually, with expression, from class readers
o Progress from reading texts aloud to reading silently on their own
o Demonstrate understanding of what they have read through oral, written, and artistic responses.
Develop vocabulary (synonyms and antonyms, homonyms, compound words)
o Form simple sentences from the content of their main lesson themes
o Recognize and characterize correct parts of speech (verbs, nouns, adjectives, adverbs)
o Show that they understand and recognize basic sentence structure (subject, verb, and object)

Writing Skills
o Learn to write and read in cursive
o Write short descriptive or narrative accounts of stories or recent events.
o Write short informative accounts based on oral presentations of a factual nature (such as those related to farming, house building, etc.)
o Keep a journal
o Write poetry
o Write summaries of stories or continue a story which the teacher has begun for them
o Write social or practical letters, such as thank you letters.
o Use punctuation -capital letters, end punctuation, commas, apostrophes for possessives and contractions, quote marks.
o Indent paragraphs
o Write in well-formed cursive script

Spelling
o Spell vowel and consonant digraphs and simple compound words
o Practice spelling with words arising from lessons and review or expand lessons in word-formation as needed

Speaking and Listening
o Recite longer poems, both individually and in chorus, and perform in short plays.
o Retell longer, more complex stories and tell about their own experiences in and out of school
o Participate in class discussions of topics drawn from the curriculum
o Give an explanation of what they are doing to an inquirer.
o Draw, paint, model or otherwise artistically represent content presented orally from across the curriculum

4th Grade:
As more time is devoted to literacy skills, it is important to maintain the cultivation of spoken language through recitation and speech exercises, reporting and describing, discussing and listening. Class readers may be used but these are supplemented by access to a wide range of literature in the classroom and in the library.

By the end of fourth grade, most children will be able to:

Speaking and Listening
o Perform in a play before the school community, speaking both in chorus and several lines individually
o Recite poetry and prose passages, both individually and in chorus.
o Give short talks on topics drawn from the curriculum.
o Recall and talk about the main events, characters, and significant details of stories, myths and other presentations of a factual nature.

o Give oral book reports

Writing
o Write narratives based on stories they have heard and experiences they have had in school and in daily life
o Write formal letters.
o Write informative reports or summaries based on what they've heard or read.
o Copy important texts such as sayings and quotations, poems and the texts of songs
o Know irregular plurals
o Know remaining vowel and vowel/consonant digraphs
o Write with an ink pen

Reading
o Demonstrate increasing fluency in reading from class readers, supplemented by a wide range of literature.
o Show their understanding of a variety or reading materials, including literature and nonfiction, through oral, written, and artistic responses.
o Know how to use a dictionary
o Make a reasonable guess at unknown words in a text
o Read confidently and independently

Grammar
o Identify and characterize the parts of speech, including nouns, verbs, adjectives, adverbs, prepositions, articles, and conjunctions.
o Use the comma and exclamation and question marks
o Show mastery of past, present, and future tenses.
o Identify the main clause in a sentence and distinguish between the four types of sentences: statement, question, exclamation, and command.

Spelling
o Learn to spell groups of related words and common, but difficult, words such as beautiful, experience, create.
o Know more irregular families of spellings
o Guess the pronunciation and spelling of unfamiliar words.

5th Grade:
Reading Goals
o Read and analyze a wide variety of age appropriate genres, biographies, Ancient Greek and other Ancient Mythologies, literature and poetry
o Distinguish between ones own voice and that of others Grammar and Essay Writing
o Understand how verb tenses express time in language
o to relate how various parts of speech express different qualities to their own increasing variety of inner experience
o to understand declension, sentence structure, punctuation, prepositions, etc.
o to articulate different standpoints and varying relationships, and to distinguish between direct and indirect speech or active and passive modes
defining the speaker's own position
o to write clear, focused essays using the multi paragraph essay structure, incorporating introduction, supporting evidence and conclusion
o introduce and develop skills of drafting, conferencing, revising, rewriting and editing

Recitation

Pupils recite more complicated texts from their history lessons: early oriental works such as the Bhagavad-Gita, the Mahabharata, the Vedas or Sumerian, Akkadian, Egyptian or Ancient Grecian texts or poems. Such literature coming from so far away both in time and place astonishes the pupils and helps prepare the students to be open to other cultures and to respect and appreciate them.

Language Arts Assessment
o Perform in a play and speak numerous lines individually
o read confidently and independently
o read aloud fluently with awareness of punctuation including direct speech
o take down a dictation on a known subject with reasonable accuracy
o use a dictionary to find unfamiliar words for both spelling and meaning
o use a thesaurus
o use common suffixes and prefixes
o use quotation marks in direct speech, colon and semicolon, and appropriate use of paragraphs
o know use and character of all major parts of speech; nouns, verbs, adjectives, adverbs, repositions (time and space) the articles, conjunctions, interjections
o use simple and continuous verb forms in all tenses, including present perfect and forms of the future, in questions and negatives and active and passive moods.

6th Grade:
Speaking and Listening
o The students should experience the strength of language in all its forms.
o Recitation of ballads and nature poems
o Public speaking and elementary rhetoric can be taught through the presentation of short talks as well as through preparing and delivering exhortations, commands and directives (related to their Roman studies)
o Oral presentations associated with the study of geography

Reading
o Read books in a range of styles and give a verbal summary of the main content
o Write clear and concise business letters using topics directly relating to the classroom experience, i.e. when a new building is being built, inquiries to a museum or campground regarding a class trip, or ordering musical instruments. (this is also duplicated in their foreign language studies)
o Speak in chorus and individually (continue to practice regularly)
o Read in a variety of genres
o Perform individually in the class play

Grammar
o The subjunctive mood, sentence structure, kinds of sentences, i.e. interrogative, declarative, imperative (command) and exclamatory, metaphor and metaphorical exchange all make up the typical Grade Six grammar lessons.
o Further parts of speech learned at this time include: subject (simple and compound), predicate, clauses (i.e. dependent, independent, adjective, adverbial), and three compliments (direct object, predicate adjective, and predicate nominative.)

Essay Writing
o Students write descriptions in connection with nature studies, history and geography. Spelling continues to be practiced.

7th Grade:
Speaking and Listening:
Lyric poetry – spoken aloud, with especial attention to pieces teacher and pupils personally like. Narrative Content: Historical novels, adventure stories centering on the Arthurian legends and voyages of discovery. Continuing work on biographies, creative writing, research papers, early play writing, and forms of poetry. Wide reading, fiction and nonfiction. Short book summaries and verbal reports.

Grammar:
Sentence structure. Writing exercises that express a wish or something the pupils admire, or something they are surprised about. Getting punctuation right is important.

Essay Writing:
Essays exploring subjects from opposite viewpoints are assigned in quick succession. Pupils need to weigh facts from various angles. Pupils use their own mistakes to show them how to do it correctly. Students explore metaphor and imagery. They learn the craft of letter writing for different purposes – bank managers, eyewitness accounts, factual summaries, commentaries, notes, e-mail, etc.

8th Grade:

Shakespeare, epic and dramatic poetry, continue literature, grammar, spelling, essay writing, business and practical writing, write skits and short plays.

Speaking and Listening
o Students perform in a major play or dramatic presentation before the school community.
o Students speak on prepared topics, including more formal oral presentations based on their own research.
o Students recite, individually, and with expression, epic and dramatic poetry and prose pieces.
o Students participate in class discussion and dialogue, including expressing an opinion or point of
view and explaining the reasons or experiences that led to that viewpoint.

Reading
o Students read a wide range of classical and modern literature, including at least one book per month during the school year.
o Students demonstrated understanding of a variety of literature, including novels, poetry, short story, and drama, through oral, written, and artistic responses to the ideas and themes presented.
o Students read a variety of nonfiction, for information and to discover new ideas, making effective use of reference materials to develop and support their own research projects and classroom work.

Writing
o Students write informative essays on topics drawn from the curriculum and reports based on their own reading and research.
o Students compose original pieces of creative writing, which may include poems in various forms,
short stories, or dramatic dialogues.
o Students write narratives, which may include historical accounts, biographies, journals, stories and accounts of their own experiences.
o Students proofread, edit, and revise their own drafts.

Grammar

o Students show their knowledge of the grammar taught in previous years, including sentence structure, punctuation, compound and complex sentences, etc.

Learning Expectations in the Language Arts:
o Students perform in a major play or dramatic presentation.
o Students speak on prepared topics, including formal oral presentations based on their own research.
o Organize the presentation with a clear purpose or main idea
o Effective use of research materials to support and develop their topic, providing appropriate documentation.
o Speak clearly and effectively, showing through their diction, pacing, use of eye contact, expression, etc. that they're aware of the needs of the audience
o Effectively explain and illustrate the ideas presented, through the use of examples, visual illustrations, demonstrations, or other aids to effective communication

Examples of Student Assignments:
o Students may prepare individual oral reports on topics from the curriculum, including biographies of historical figures, authors, poets, or inventors, or particular events from history. Preparation typically includes research into source materials at the school or local library and/or articles obtained through computer research. Oral presentations are usually accompanied by a written summary or outline, with a bibliography of sources used.
o Students in the 8th grade traditionally prepare a longer and more in-depth report for presentation to the wider school community. They choose their own topics for the "8th Grade Project." and present them to the teacher for approval. Many teachers ask students to present a rationale for their proposed topic, explaining why they wish to research this topic and what interest or value it might have for a broader audience. Part of the challenge for students in this assignment, however, is that they are given the freedom and responsibility to develop the project out of their own interests. The 8th Grade Project usually includes a written report, an oral presentation, and an artistic or hands-on presentation. Some examples of topics 8th grade students have researched and presented: Feng Shui, Karate, Biofeedback, Black and White Photography, The Samurai Code of Honor, Wiccan, Japanese Internment Camps, Hybrid (gas-electric) Cars, Major Naval Battles of World War Two, The Hidden World of Ballet (pressures on young dancers), Pollution of the Oceans, The Construction of a Guitar, Children in Nazi Concentration Camps, Gettysburg, J.R.R. Tolkien, The History of the Comic Book, The Magic of Cats, The Art of Vincent Van Gogh.

Criteria for Examining Student Performances and Products:
o Perform a speaking role in the play or presentation
o Deliver their lines clearly and audibly, from memory
o Show they have developed an understanding of the character portrayed, through their spoken expression, gestures, posture, costume design, etc.
o Show their understanding of and support for the presentation as a whole, through their interaction with other actors and through their participation in the design and construction of sets, costumes, sound or light effects, posters, etc.
Examples of Plays and Musicals performed by 8th Grade classes:
Much Ado About Nothing, Twelfth Night, A Midsummer; Night's Dream, The Merchant of Venice; Romeo and Juliet, The Hobbit (musical adaptation), Alice in Wonderland (musical adaptation), Cheaper By the Dozen, The Mouse That Roared, Our Town, Steal Away Home (musical), You Can't Take it with You, A Servant of Two Masters.

MATH 1-8

1st Grade:
In Mathematics, the first graders first encounter numbers through stories, clapping, musical rhythms, and other artistic activities. In this way, they are guided from their sensory experiences to the beginnings of abstract reasoning. Students begin with the Roman numerals, which is less abstract than the Arabic. Whole numbers are introduced with emphasis on their archetypal character- 1 means unity, 2 is a duality, and so on, using pictures familiar to the child's world (the sun, parts of the body, petals of flowers, etc.). Then students learn the four basic arithmetical operations and their different qualities. Students begin the actual figuring with something concrete and visible, stones, shells or other natural objects, always proceeding from wholes to parts. (20 is 10+10). Only after considerable practical experience in adding, subtracting, multiplying and dividing are the written symbols for these operations introduced in a pictorial way. Rhythmical counting, recitation of the times tables, number riddles, number bonds up to twenty, and mental arithmetic are all practiced intensively in the early years. This gives the children an experience of movement in mental activity, which compliments the way the letters of the alphabet are introduced.

Form Drawing:
Forms are experienced initially though movement. At first the forms are simple, but become more complex as the child progresses. In the first 4 to 6 weeks of school the first graders learn the form elements of the straight and curved line, elements that are encountered again in the writing block as the Latin printed letters. They later go onto angles, triangles, rectangles and star forms and then semicircles, circles, spirals and ellipses, setting the stage for the study of Geometry in later years.

By the end of First Grade the students will be able to:
o Understand Roman numerals 1-V and Arabic numerals 1-110
o Count from 1-110
o Have working knowledge of the 4 processes and their symbols.

2nd Grade:
The children carry out more complicated operations with the four processes. Imaginative stories still form the basis of these problems. Through rhythmic counting accompanied by accented clapping and movement of the whole body, they learn to count by two's, three's, four's and five's, and begin learning the multiplication tables. Tossing a beanbag to each other, chanting 4 is 2x2, 6 is 2x3 etc., the children are engaged and enthusiastic. They then learn to process through mental arithmetic and are taught carrying and borrowing. Years, months, days of the week, and time of day are also introduced at this time.

Form Drawing
Symmetry exercises with emphasis on an axis, mirroring exercises with emphasis on the above-below relationship, and four sided symmetries with rounded forms and their metamorphosis into angular forms.

By the end of second grade the children should be able to:
o Practice of the 4 rules using numbers up to 100
o Practice in combined calculation
o Up to 12 times tables by heart
o Representation of tables in drawing
o Further practice in mental math

3rd Grade:
Mathematics in grade three should remain connected to the practical things of life. The main lesson themes of house building and gardening in grade three are an excellent source for

arithmetic problems. It immediately becomes clear that such problems require measurements. In grade three measurement moves from the oral realm, which is comparative, qualitative and contextual (this is bigger, there are more here, etc.) to the use of formal units. The measurement of length is made an even greater experience for the children by beginning with the old measurements which were based on human body proportions (yard, foot, span, and hand and finger width). Moving on from the traditional measures, children are then introduced to the standard measurements of length, liquid, weight, time, money, and music in use today. The children themselves should measure and weigh many things.

By the end of third grade, most children of normal ability range will be proficient in:
o Long multiplication and long division
o Remainders of division
o Checking answers by doing reverse process
o Estimating answers to the nearest hundred or thousand
o Regular practice in oral and written arithmetic to firm up knowledge in basic addition and subtraction facts, and the times tables
o The recognition of number patterns in various multiplication tables, up to the 12 times tables.
o Telling the time on clocks (both analog and digital)
o Measurement of time, liquid capacity, length, rectangular area, weights, money, and all measurements connected with practical manual work (gardening, cooking, and building)
o Problems about measures written in words and sentences
o Shopping lists and money calculations; obtaining the correct change
o Freehand drawing of line symmetries and rotational symmetries.
19 Patrick McMahon Third Grade Mathematics Goals (2002-2003)
o Mirror picture exercises.
o Awareness of perpendicularity
o Experience of directions; north, south, east, west
o Prime numbers
o Place Value

Form Drawing:
o Rather than painting it is usually form drawing that begins things. Form drawing becomes the focus throughout a series of main lesson block.
o A fitting preparation is made for writing by working with lines that do not illustrate an object but which meet the impulse for movement in the child, that train his feeling for form and develop his manual dexterity
o Exercises with asymmetric symmetries are now added to the preceding one. We are concerned here with lines that develop from a point in the center out towards threes side. The child is to find supplemental forms that lead back inside in order to restore equilibrium and harmony. This requires a great deal of independence and mobility in being able to imagine. Such exercises are a significant preparation for the geometry of later grades in which construction with the compass and ruler begins.

4th Grade:
In 4th Grade the students begin to work with fractions. Fractions will be introduced graphically. The teacher will introduce interesting and significant teaching ideas by drawing from the historical development of fraction calculations in Egypt. In order to do general justice to the subject of fractions it is recommended to use the following three methods as an introduction: To proceed from the whole to the parts, from the parts to the whole, and to establish the principle of equivalence. After this the four rules are practiced with fractions, the same with simplifying, expansion and division of the denominator into prime factors. After this, decimal fractions follow as a practical application.

Form drawing leads into elementary geometry. In order that the pupils get as intensive an image as possible of these forms, it is recommended that they do not initially use compasses and ruler, but draw freehand. The Pythagorean rope is presented as a first introduction to Pythagoras' Theorem.

By the end of fourth grade, most children will be able to:
Numbers:
o Carry out all four number processes confidently
o Read and understand numbers up to six figures
o Know the multiplication tables up to 12 out of sequence
o Do long multiplication with numbers up to 122 as multiplier
o Find factors of a given number
o Identify prime numbers less than 100
o Answer more complex mental arithmetic questions involving a mix of processes (e.g. I doubled a
number and added 8 and got 32, what was the number?)
o Do long division including making use of remainder and estimating approximate answers.
o Find Lowest Common Multiple or Highest Common Factors
o Create a 'book of rules' introduced in the course of the fraction work.
Measurement:
o Record information such as height, weight, volume, etc.

5th Grade:
o Constant practice in mental arithmetic.
o Combinations of the four rules
o Calculations with fractions and mixed numbers: expansion and reduction of equivalents (division into prime factors)
o Illustration and comparison of fractions. Introduce calculation with decimals.
o Work with table of place values, rhythmically, through movement, and qualitatively introduced
o Introduce of the relationship of decimals to place values
o Measurements using decimals
o Recognition of connections between decimal numbers and decimal fractions

Assessment
o Answer more complex mental arithmetic questions involving a mix of processes (e.g. The 12:38
train to Santa Barbara takes 118 minutes but left 29 minutes late. When did it arrive?)
o Do long division including making use of remainder and estimating approximate answers
o Find lowest common multiple or highest common factors
o Use all four processes with fractions including mixed numbers and improper fractions
o Understand how to use decimal notation, decimal fractions and interchange of decimal with common fractions
o Carry out four processes with decimals
o Use long division and multiplication using the decimal point
o Work with aspects of time including 24 hour clock
o Calculate average speeds

Geometry
o Starting with the circle, discovery of the main geometrical figures
o Construction of different triangles; equilateral, isosceles, scalene, right angled
o The Various angles; acute, obtuse, reflex.
o Circles touching a triangle; inside and Pythagorean Theorem; visually using knotted string (did

Egyptians used this to construct their pyramids?)
o Introduce and work with metric measurement including estimation

Assessment
o Draw freehand archetypal geometric shapes: different kinds of triangle, rectangle, quadrilaterals,
polygons and circles
o Divide circles into 2,3, 4, 6 and multiples of these, deriving regular figures like square, triangle and hexagon

6th Grade:
In 6th Grade students can increasingly create order out of what has been gained with the strength of their ability to experience internal logic. As they become confident and secure with mathematical laws, they learn self-confidence.
o Continue mental arithmetic exercises
o Calculation with natural numbers, fractions and decimals
o Introduce ratio and proportion, with direct and inverse proportion
o Percentages
o Convert percentages and decimal numbers to fractions and vice versa
o Estimate results by rounding off number prior to accurate calculation
o Application of percentages to business: simple interest and discount
o Block graphs, pie charts, bar charts, linear graphs
o Make time and speed calculations
o Tessellation (tiling) involving accurate construction of parallel lines
o Exact construction of pentagon/pentagram

Geometry
Geometry is taught in a separate main lesson.
o Geometrical proof of sums of angles of triangle: using cut outs, protractors
o Proof of above using calculations
o Accurate construct of angles using compasses, bisecting angles
o Construction of triangles from description
o Congruent triangles; the four principle cases for congruency
o Movement properties of triangles and quadrilaterals, triangles in the same segment of a circle

7th Grade:
Beginning in 7th Grade and continuing into 8th Grade, pupils create order with the strength of their new ability to experience internal logic. This is exemplified in algebra.
o Continuing practice with mental arithmetic
o Revision; the four rules in natural and positive numbers
o Basic bookkeeping
o Intro to negative integers through debt calculation
o The four rules with negative numbers
o Extension to cover all radicals
o The four rules with rationals and their connections
o Intro of brackets
o Recurring decimals, value of !
o Compound interest
o Statistical data
o Graphing, business math

Algebra
o Simple equations

o Formulas
o Powers and roots of numbers
o Ratio and proportion
o Areas
o Simple set theory

Geometry
o Areas – construction, calculation
o Circle
o Pythagorean theorem
o Tangents
o Perspective drawing – linked to modern history lessons.

Assessment
o Know power of numbers
o Work out ratio and scale
o Use algebra as a general solution to specific problems
o Use negative and positive integers

8th Grade:
8th Graders continue with the above and will know:
o Know how to work with square roots
o Calculate compound interest, mortgage rates, income tax
o Make time and speed calculations
o Calculate mechanical advantage in simple machines like pulleys, levers
o Present information graphically – pie charts, bar graphs
o Foreign currency exchange
o Algebraic graphs
o Precise use of a compass, ruler, set squares to draw constructions of major geometric figures
o Make use of freehand perspective
o Use a protractor
o Draw translations, reflections, rotations
o Know Pythagorean theorem and its applications
o Use instruments to draw linear perspective
o Know properties of triangles, parallel lines, and intersecting lines
o Know and apply formulas for area of regular geometric forms
o Calculate areas of irregular forms

SCIENCE 1-8

1st Grade:
Students learn to see nature as a complete whole comprised of any interlocking parts. The children are encouraged to reflect on things through stories, through looking at nature, following the seasonal changes and through descriptions of experiences which emphasize what is special about what they see.

2nd Grade:
Nature study continues in connection with poetry, legends and imaginative descriptions of natural processes. Students now experience how human beings are linked to nature. The "outdoor classroom" will be experienced in all seasons through regular walks and field trips.

3rd Grade:

Environmental Studies
Third Graders study the ways that indigenous peoples and cultures lived in harmony with their environments--how their shelters were built, how they clothed themselves, what foods they ate and how it was acquired. It can be shown, using the Native American people, how the Woodland Indians of the Northeast were dependent on the plants and trees, which predominated in their environment. They provided them with their food, shelter, clothing, and means of transportation. The Plains Indians were indebted to the buffalo, which were revered and looked upon with deepest gratitude. The Pueblo Indians of the Southwest, living in the barren and dry deserts, depended on the earth, which they used for their shelters and ceramics. A large part of our environmental studies will be spent studying the many Alaska Native cultures in all it's forms, for their shelter and transportation and for the animals that lived in it and for their clothing and food.

The study of shelters and housing can progresses through pioneer days and the building of log cabins in the forests, and sod houses on the prairies, right up through the present day into the building of contemporary dwellings. Visits to building sites are important, and the class learns about the many stages and the specialties involved in the planning and building of a modem house. Practical experience is important for the third grader and the class undertakes its own building project, perhaps as a gift to the school or wider community.

Farming and gardening are also very important elements of the third grade science/environmental curriculum. The class starts and maintains its own organic garden. This active gardening curriculum continues all through the following grades.

4th Grade:
o Stories about: (a) different animals describing their physiology, morphology, and habitat; (b) people with a special relationship to an animal; (c) animals and other living things that cause beneficial or detrimental change to the environment (i.e. beaver).
o Observation of wild and classroom animals
o Animal reports, including drawing, writing, and painting
o Animal verse and songs
o Animal charades, improvisation, role-playing
o Animal modeling
o Collages, murals, models and displays of food webs and cycles and of different environmental ecosystems.
o Dramatization and games depicting food webs, chains and cycles, and various animal movement.

5th Grade:
American regional and physical geography related to vegetation, animals and agriculture are studied. The children should develop a greater consciousness of the interrelatedness of life and environment – particularly through the study of botany and zoology. Practical work with plant and animal life includes lab work and field work to bring a direct environmental and ecological emphasis to the life science curriculum.

6th Grade:
Earth Science, Geology and Astronomy.
Through the presentation of lively pictures, students consider how the earth was created years ago and how various forces have caused the formation of mountains, oceans, lakes and other geographical features. Emphasis is placed on how the earth is changing constantly and what is causing this change. Comparisons are made between granite and limestone and between various types of rocks—metamorphic, sedimentary and igneous. The study of geology is connected to geography (actual earth forms), and particularly local geography, whenever possible. The study

moves from the "whole" to the "part." For example, only when a lively image of a granite mountain range as contrasted to a limestone landscape has been given are actual samples of the respective rocks presented.

Astronomy includes the study of the movements of the sun, moon, planets and constellations, and emphasis is placed on observations with the naked eye.

In the Physical Sciences, the Sixth graders are given a picture of what we can experience when observing the inanimate world and the opportunity to observe phenomena with all their senses. Sound, light, heat, magnetism and static electricity are introduced. Similarities and differences are elucidated. (For example, the ways that sound, light and heat travel are compared. These forces can also be obstructed, deflected, reflected or absorbed.) The teaching is based mostly on observation so that true and sound conclusions can be drawn. Students are engaged in exploring the "mysteries" of nature rather than being given instant conclusions. In this process they experience and realize that the path to knowledge is at times difficult and different from the stores of information with which we are inundated. Experiments start with what is familiar and known. Students carefully write up their observations and artistically illustrate their notebook pages.

The geology/mineralogy main lesson block includes study of limestone, silica, chalk, and coal, etc.

Physics
Acoustics, optics, the relationship and colors of light and shadow, heat, magnetism and static electricity are studied.

7th Grade:
In the 7th Grade, the physical science curriculum continues with the study of Light/Optics, Acousitics/Sound, Heat, Magnetism and Electricity. The 7th Grader, in addition to experiencing phenomena and then reflecting on the experience, also asks "how." "How has the phenomena arisen and how does it work?" The demonstrations, activities and investigations now refine the student's capacities for observation, for drawing conclusions and forming judgments. They call upon the student to compare what they are experiencing with what they know. Students learn to understand the gramophone, the pin-hole camera, the camera obscura, thermometers, electrical appliances, and so on. Through the process of quantifying and measuring, students begin to objectify their experience. They begin to delineate specific forces and explore their interactions. For instance, students experienced the pitches of different sounds in 7th Grade; now they discover how the relationships between pitches correspond to mathematical formulas. Students study Mechanics and again the children observe, experiment and discover the laws themselves. Student study levers, digital balance, the inclined plane, the winch, pulleys-block and tackle, wedge, screw, and gear.

Work with Inorganic Chemistry begins at this grade. Moving out from the familiar process of Combustion, students learn elementary ideas and concepts of Chemistry. Acids are introduced as another form of fire and how, together with bases, salts are formed. Water and various gases (hydrogen, oxygen, and carbon dioxide) can be studied along with the principal metals. Students are approached with the scientific, cultural, artistic and practical sides of chemistry and how it relates to industrial and economic life. They are asked to respond through observations, reports and illustrations.

The Life Science curriculum includes Physiology. The main systems of the body are studied: respiratory, circulatory, digestive, and reproductive. These are presented to the students in an artistic and positive way. Health, Nutrition and Hygiene are brought so that these systems have

meaning and relevance to the students. Discussions include responsibility for oneself and respect for others, the responsibilities involved in sexual relationships and parenthood, contraception and love, the media and teen magazines, and larger issues of freedom, instinct, and human nature.

Throughout the science blocks accurately written descriptions and drawings are integral. Reports on the applied aspects of these subjects are done as well.

The 7th Grade Science curriculum includes a block on Astronomy and one on Computer Science.
Students learn the biographies of great scientists to show how science is set in a historical context and how determined individuals pursued their fascination with phenomena.

The technical applications (welding, smelting, and fire extinguishers) are taught inside of a wider social and environmental context.

8th Grade:
If the key question in 7th Grade was "How," the questions in 8th Grade are "Why" "Where" and "Who." Why does this process occur? Where in the world does it happen? Who found a way to apply it? In Physics, Acoustics, Optics, Heat and Electromagnetism are pursued further and are taken up through their practical application as founded in the industrial and technological revolutions. Studies in Hydraulics, Hydrostatics, Meteorology and Aeromechanics are introduced. Work in the Life Sciences, or Physiology, continues with a study of the skeletal and muscular systems (particularly the form and function of the spinal column and its relationship to uprightness), as well as the inner working of the eye and ear. The nervous and reproductive systems are also taught.

Finally, using simple chemical concepts extended from the 7th Grade curriculum, a link is developed with substances which build up the human organism, such as starch, sugar, protein and fat. This block deepens the understanding of health and nutrition studied in 7th Grade. The general theme is how metabolism and the food chain relate to the natural world and the seasons. Pickling, storage, cheese making and food production and cooking are examined along with issues of health and diet.
8th Grade students learn to build a simple computer and continue their understanding of the basic science of computing.

ECOLOGY

In Alaska our close proximity to wetlands, ocean, mountains and forests, affords our students the opportunity to explore dramatically diverse environments almost daily. Rather than taught as separate subjects, environmental studies and eco-literacy are thoroughly integrated into all aspects of the curriculum.

Kindergarten:
Celebrating seasonal festivals makes the pupils aware of the yearly rhythms of nature and the interconnectedness of nature and people, even in an urban environment. Time spent in creative play – working with wood, wool, water, sand – gives pupils sensory experiences that evolve into a keen sense of the world around them. Orderliness and an attractive classroom environment mirrors the orderliness and beauty of nature. Stories, poetry, songs and artistic activities develop the imaginative faculties (a sense of wonder and the search for answers) which are the foundation of the scientific method of inquiry.

1st & 2nd Grade:

Stories with themes of transformation teach the concept of evolution in an imaginative way setting the stage for a more rigorous analysis in the later grades. Stories and fables lay a metaphorical foundation for the forces of nature that will be studied scientifically later.

3rd Grade:
Creation myths from different cultures about the origins of the earth and human beings prime the mind of the children to think of the whole world as a single holistic environment. Stories of individuals, the Rev. Martin Luther King, Jr., Henry David Thoreau or Jane Goodall teach students about their unique place in the ecosystem and their personal ability to affect change. The 3rd grade gardening and farming curriculum reinforces lessons about nature and the seasons. In the early years, the APWS curriculum emphasizes through story and activity, that ecology begins with a sense of personal responsibility.

4th Grade:
Local geography is an important aspect of environmental studies. Students will learn and describe the many unique aspects of their local environment. A special emphasis of the 4th Grade year is the human interaction with the animal kingdom including observation of wild and classroom animals. Activities include; animal reports, including drawing, writing, and painting; animal verses and songs; animal charades, improvisation, role-playing; animal modeling; collages, murals, models and displays of food webs and cycles and of different environmental ecosystems; dramatization and games depicting food webs, chains and cycles, and various animal movement.

5th Grade:
American regional and physical geography related to vegetation, animals and agriculture are studied. The children will develop a greater consciousness of the interrelatedness of life and environment – particularly through the study of botany and zoology. Practical work with plant and animal life includes lab work and field work to bring a direct environmental and ecological emphasis to the life science curriculum. As an example of the integration of all the subjects, when fifth graders learn about the birch tree of Alaska, with its unique characteristics and gestures, they learn through lively description of its historical use and cultural importance, painting and poetry. This leads the students to an understanding that does not just place it in the category of 'deciduous' and then go on to the next type of tree, but teaches them the place of the birch tree in the culture, the environment and the world.

6th Grade:
Students continue their communal work in the school garden. Emphasis is on the care of the soil and the tending and harvesting of flowers and vegetables. Students study the importance of biological diversity, composting, natural pest management. They may assess the schools current landscaping and then evaluate its present health and environmental impact. Sort and analyze school garbage to identify recyclable and compost-able materials. Form a plan to reduce consumption and waste at school and at home. Students may interview grandparents or older neighbors about how the landscape of the area has changed over the years. Students ask how the town or city developed, where roads were built, what was once forest or farmland. In class discussion, the look of the land today with what it once was is compared. Students do research about public parks and gardens in their community. Students gather information by writing letters to local parks dept., environmental groups or state dept. of natural resources or local garden clubs. Students create a pie graph showing the % of space in the city limits devoted to parks and public gardens. Ways in which the amount of space devoted to parks and public gardens can be increased are discussed.

7th Grade:

Focus is on food choices and nutrition. Students investigate the effects of food production, diet, and nutrition on human health and the environment. The link between agriculture and the manufacturing industry is explored as well as the impact of manufacturing on air quality, soil, and water. Continue with organic gardening and composting.

8th Grade:
Students explore the sources, production, uses, and environmental effects of energy. They may examine how energy is used, how it is measured and how it can be conserved. Create charts to show how energy is used in the school and at home and apply their learning by examining ways to improve the energy efficiency of their school and homes. Field trips and field study will be a large part of the learning. Continue with organic gardening and composting.

GEOGRAPHY/SOCIAL SCIENCE

Kindergarten to 3rd Grade:
Pupils get to know and feel connected to their physical surroundings and to the work that human beings do.

4th Grade:
The immediate surroundings of the school, the locality, the town or city are shown to the children in their geographical and historical development up to the present. Through these studies, their more generalized relationship with the world can be transformed into a sense of belonging, both socially and spatially. The students recite poems relating to the main-lesson topics, such as the study of animals, local geography and history. Map-making (draw 2-dimensional and construct 3-D topo): (a) map of pupil's bedroom; (b) student's route to school (c) map of school (d) map of Alaska. Make basic geographical land forms out of clay or paper mache. Field trips locally and throughout Alaska habitats. Role play, dramatize earth changes. Create small examples and models of earth changes. Observe using five senses to describe observations orally, in writing, and artistically. Develop questions of what, where, and why.

5th Grade:
Contrast life by different ecosystems. Discuss industrial growth and its effect on the environment. Continue map drawing, wall maps, using an atlas, economic interdependence and geographic linkages, regional geography of US and North America.

6th Grade:
Main lesson on the United States and global overview. Polarities of water, light, soils, landscape, economy. The earth as a whole – shape and distribution of oceans and continents, dependence on vegetation, seasons in relations to earths' orbit, old and young parts of the earth – major mountains, valleys, rainforests, deserts, outbacks; see the globe as a whole, not just US-centric view. Forest clearing, dustbowls, mineral deposits and trade relations, opening of transport routes.

7th Grade:
Africa and Asia: climactic, topographical, plant zones, different ways of life and traditions, developing nations and economic relationship to developed world. Famine and civil war, future of Pacific Rim in relations to global economy, issues around rainforest exploitation.

8th Grade:
North and South America – structure of double continent, diverse social and ethnic groups, demographic issues in US, cloud formations observed and painted, meteorological readings,

rainfall, etc. Mediterranean lifestyle and climate, desert, arctic. A geographic and economic comparison between Africa and Europe or Europe and Asia, etc.

HISTORY/SOCIAL SCIENCE

1st – 3rd Grade:
In the first three years at APWS, pupils will learn 'history' in a non-chronological way through myth and legend that provide them with an understanding of narrative, the primary mode of historical documentation. Many main lessons contain stories of human challenges and quests while familiarizing them with older cultures. (See also the language arts curriculum.)

4th Grade:
Pupils get their first sense of historical time from their studies of local geography and environment (above). We will be developing an Alaska Studies unit for fourth graders.

5th Grade:
Initial introduction to: Ancient Civilizations: Asian and Middle Eastern peoples, i.e. the culture and religions of Ancient India, China, Ancient Persia, Mesopotamia, Egypt lead up to studying the myths and history of Ancient Greece from Homer's time up to its encounter with oriental culture at the time of Alexander's campaigns. Contrast how ancient life is affected by environment, climate, food, clothing, beliefs and religion. The economic and geographic links between the home and neighboring countries, stressing mutual interdependence. Study of how our culture today is founded on the achievements of past ages. This gives the pupils an early appreciation that the different flowers of human civilization unfolded in the many peoples of the earth, and that every culture has its own essence. This lays a foundation of understanding of how culture belongs to humanity as a whole.

6th Grade:
Grade six encompasses an entire cultural epoch, approximately 2100 years, from the eighth century B.C. to the fifteenth century A.D. The founding of the Republic of Rome, cultural achievements of the Romans in the area of building and architecture, sewer system, aqueducts, military roads and the invention of the rounded arch are covered. The migrations of the peoples of Europe after the decline of Rome, the origin and expansion of Islam lead to cultural changes in the Middle Ages, what changes were brought about for Europe through contact with Islam. Here the aspect of causality is taken into account as Europe lagged far behind the Orient. Then with contact with Islam and the East new technological and industrial progress developed in European towns, particularly Italy. The monastic settlements and the growth of urban cultures as well as the early influence of technology such as water wheels, building techniques, advancements in navigation and shipbuilding and inventions such as gunpowder, telescope, clock, paper and the art of printing are important themes.

7th Grade:
History from 1400 to Renaissance, biographies, African and European geography. History of European Explorations, invention of printing, the Renaissance, birth of modern science, Joan of Arc, Martin Luther, de Medicis, Thirty Years' war, the Plague.

8th Grade:
1700's to present, biographies, American history, Geography of Asia, Australia and Antarctica. Pilgrims, the Constitution, Civil war, Gandhi, Nightingale, Red Cloud, Wounded Knee, Industrial Age, child labor, newer technologies, WWI.

WORLD LANGUAGE

1st Grade:
First graders will be introduced to two foreign languages through the FLES method, Spanish and Japanese. Songs and stories from the country, counting and games are all incorporated. Colors, parts of the body, days of week and seasons, and numbers are taught.

2nd Grade:
Activities from first grade to be continued and enlarged upon: poems, songs etc. Recitation of numbers. Vocabulary of nature, articles of clothing, daily routine activities. Listening to simple stories.

3rd Grade:
Continue with six lessons per week. Through increased exposure to the language the child can obtain a good pronunciation unconsciously and not through correction which only increases his inhibitions.

4th Grade:
Focus on writing and reading in the foreign language. Expand vocabulary. Continue writing the language lesson ("textbook"), to include numbered pages and table of contents. Include grammar and poetry in the language lesson book.

5th Grade:
Practice reading using a reader, be able to respond to simple questions to a text, be able to retell small portions of a story freely, be able to use and identify present, past, and future tense of verbs learned, be aware of different sentence structures.

6th Grade:
Speak more freely about self and environment, understand grammatical terminology, have a good imaginative picture of country where language is spoken.

7th & 8th Grade:
Understand and use cases. Grasp sentence structure, express clearly in range of everyday situations.

ART, MUSIC, HANDWORK, PRACTICAL SKILLS, VISUAL & PERFORMING ARTS

The hand informs the brain. Developing coordination and fine motor skills inform overall intellectual, cognitive, and creative ability, a precursor for formal education.

Music:

1st Grade:
Music permeates all areas of the student's life in and out of the classroom. A part of this is the constant expansion of the repertoire of songs, seasonal songs, songs about the rhythm of the day and multicultural songs. First graders learn to play the flute in the pentatonic scale.(DEGAB) In this scale all the notes have an harmonious sound in any order they are played. The songs often come out of seasonal moods. Aside from a rich musical experience, playing the pentatonic flute develops finger coordination, concentration and breath control. Music periods are devoted to singing and playing the pentatonic flute, which also helps develop finger dexterity.

2nd Grade:

New songs are introduced, including some for different times of day, seasonal songs, traditional folk songs and some have a latent element of a keynote E/G. Singing melodies within the range of up to an octave. Continuation of the pentatonic flute.

3rd Grade:
In class three the transition is made to music that relates to a keynote or diatonic perspective, when the children meet with an early 'grammar' or 'spelling' (notation) of music. The recorder is an instrument that shapes and differentiates the stream of the breath. Bowed instruments bring in a new important element. Sing in music for several voices in arrangements of rounds. Begin instruction in the Recorder. Begin string instrument work in groups.

4th Grade:
Central to music in the 4th year is the connection with fractions, the fixing of rhythmical note value. Recorders and string instruments accompany the singing and thus form a musical community. Fourth through eighth graders have the opportunity to participate in the school orchestra.

5th Grade:
Music lessons now also involve the 'grammar of music'. Linked to arithmetic lessons in which fractions are studied, note lengths and time value are now added. Instruction in recorder and string instruments are continued. Continue to participate in orchestra

6th Grade:
Folksongs in several voices and ballads, orchestral wind instruments, music theory, inventing melodies, improvising, music as art – how different motifs belong to different epochs of history, etc. Continue to participate in orchestra.

7th Grade:
Question and answer ballads, duets, world music, guitar, music theory, rhythmical improvisation, musical pieces with spoken text, biographies of composers. Continue to participate in orchestra.

8th Grade:
Songs in 2 to 4 voices, a-capella, songs about death, songs criticizing contemporary life, songs with strong rhythms, humorous pieces, music composed for class plays, romantic orchestral works – i.e. Swan Lake, theory of melody, continue of composer biographies. Every student now has experience with string, wind, and percussion instruments and can read music. Continue to participate in orchestra.

Handwork:

1st Grade:
Knitting is an indispensable 1st Grade activity as there exists a close relationship between finger movement, speech and thinking. Working through a difficult task enables them to manage practical everyday problems with ability and confidence, and it promotes cognitive development. The body and mind are intricately related: just as crawling and walking at the right ages develop the baby's and toddler's nervous systems, so knitting in Grade One promotes logical thinking. Understanding the origins of the materials that are used helps to develop appreciation for the trees, plants, and animals whose wood, fibers and fleece have provided them with the tools for their work. The pupils learn how to distinguish between different types of fibers, wind balls of yarn, finger knit, measure, make their own knitting needles, and knit. Cotton washcloths and wool recorder cases are examples of two projects.

2nd Grade:

In the second grade, knitting is continued so that the children become more skillful and are able to complete many diverse projects, such as rabbits, cats, multicolored balls, dolls and hats.

3rd Grade:
Continue crocheting and the knitting. Begin crocheting clothes (e.g. a cap). Create a hand puppet using a diversity of materials.

4th Grade:
Learn Cross-stitch- through this an ability to concentrate is developed; Learn how to sew "neatly. Practice use of scissors, pins and sewing needles, and thimble. Practice different stitches.

5th Grade:
Form drawing now gains a strongly constructive component in intertwining, interlacing ribbon motifs, particularly in Celtic knot-work and patterns. Beauty now combines with accuracy. Chiaroscuro is introduced. Wet on wet water color painting continues. Clay work and shaded drawing is integrated with other subjects.

6th Grade:
Soft handwork is now joined by "hard' craftwork. Working with wood, the skills of sawing, carving, rasping and filing are practiced.

7th Grade:
Leather, slippers, shoes, weaving, carve a bowl, make a wooden, toy, boxes with lids.

8th Grade:
Sewing machine, costumes for plays, build a clay bread oven, build a teepee, make a picture frame, design and build a skateboard ramp.

Painting, Drawing, and Modeling:

Pupils from 1st -8th grade illustrate their main lesson books every day. All children paint, sculpt, draw, and make music.

1st Grade:
Pupils experience working with color rather than attempting to create formed 'pictures'. We will work with watercolors using the wet on wet technique. Primary colors are discovered as well as the quality and mood of the color. The children's feelings for form are encouraged through beeswax modeling.

2nd Grade:
Continuation of wet on wet technique using watercolor. Exercises in complimentary colors. Beeswax modeling from stories told.

3rd Grade:
Color exercises. Color tales in which the child experiences the events of a story in colors.

4th Grade:
In fourth grade, the children begin to join pure color with form. The starting point is an artistic point of view. Painting inspired by nature studies about animals, plants, and stones. Myths also provide new themes.

5th Grade:

Form drawing now gains a strongly constructive component in intertwining, interlacing ribbon motifs, particularly in Celtic knot work and patterns. Beauty now combines with accuracy. Chiaroscuro is introduced.

6th Grade:
Art work complements the physics lessons on light. Veil painting is introduced. Layer after layer of color are added to create the final result. Chiaroscuro work is continued. Model geographic forms – mountains, etc. – as part of geography lessons.

7th Grade:
Perspective drawing, ink brush and pen, continue with veil painting. Free drawing. Sphere, cone, etc. drawn as spatial solids.

8th Grade:
Black and white drawing. Continue with painting. Detailed copies. Sculpt figures with dramatic gestures.

Visual and Performing Arts:

Presentations related to curriculum, plays and musical performances are presented over the course of each year to the students, parents, and community.

Computer:
7th Grade: Computer as a tool, word processing.
8th Grade: Building a computer and basic computer science.

PHYSICAL EDUCATION, MOVEMENT

Kindergarten to 2nd Grade:
Outdoor games, jump-rope, etc.

3rd Grade:
Make a connection to the themes that are taken up in main lesson. Apparatus work and games. Surmounting obstacles helps pupils confront their environment and find their way in it. Gymnastics began on a meadow where trees, fallen tree stumps, ditches and so on served as obstacles. This natural gym equipment should come alive again to some degree for the imagination of the children. Thus the space between two benches becomes a river, a balance bean a narrow footbridge over an abyss, the wall-bars a steep mountain. Suitable games are those that begin with a circle, for example a cat and mouse game, and all sorts of catching games. Every attempt will be made to use Bothmer gymnastics, a gradual training to build awareness of body positions.

4th Grade:
Continue obstacle course exercises, but in a more demanding way. Give some subtle stimulation for achievement, for example, by counting how many children in one group manage the jump over a "ditch" or obstacle. Competitive games should still be avoided and instead, those games promoted where the children can experience "what I do has its effect on the group", such as "hot potato" and the various types of ball dodging games.

5th Grade:

Olympic sports – running, jumping, discus, javelin, wrestling - culminating in an inter-school Pentathlon.

6th Grade
Handstands, work on bars, rings, health and safety awareness, outdoor athletics, team sports, being a winner and a loser, outwitting opponents, keeping score, dodge ball, net games.

7th & 8th Grade:
Somersault, falling, vaults, handsprings, experiencing your bodily weight through pushups etc., various wrestling styles, basketball, hockey, softball, tennis, cross-country, orienteering using maps and marked courses. Playing with other schools.

LIFE SKILLS EDUCATION

With guidance from the Anchorage School District, APWS will develop a program to teach health, nutrition and life skills education. The curriculum will focus on the developmental tasks of early adolescence, health education, nutrition and life skills education.

5th through 8th Grades:
Students will participate in process-oriented course work that will explore issues of self-esteem, self-awareness, and appreciation of others. Individuation tasks in the formation of identity, cognitive skills such as perspective taking, skills necessary for making good choices regarding health, sexuality, and nutrition will be examined.

5th-6th Grade:
Students will study Human Development with an age-appropriate emphasis on puberty and the physical, emotional and social changes of adolescence. When human reproductive organs are included, permission of parent or guardian will be obtained.

7th Grade:
As the students' developmental shifts take them further from the realm of family and closer to independence, life skills course work will focus on making healthy life choices. Drug education, examination of cultural and social messages and their impact of teen consumers, as well as a focus on organizational/study skills will prepare young people to navigate their personal and school lives in a healthy manner.

8th Grade:
Students will work on a Ropes Course/Outdoor experience and will continue their study of health, fitness, and nutrition with the added elements of HIV awareness, stress reduction, and gender issues. Eighth grade also provides and opportunity for job shadowing where students can get a taste of the myriad possibilities in the world of work.

Health, Nutrition, Human Reproduction, & Basics of Child Care

6th and 7th Grades:

Health, nutrition, and reproduction are introduced just before the students enter puberty, while they are still relatively less self-preoccupied can experience the nature of the human being in a general way.