



Boundary Bay Montessori House

Operated by MIND

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Message from the Academic Director

Last week I happened to read an article in Issues and Ideas in the Vancouver Sun. It was titled "Things don't add up in B.C. math classes." It states that B.C. has used what is called "spiral curriculum since 1987, following a tradition of emulating U.S. educational practice." It follows with the statement... "the spiral curriculum runs a smorgasbord of math topics by students each year, the idea being that they pick up a little more of each with every pass". They state that "in reality, the spin leaves many students and teachers in the dust". It alarmed me because we have always been very confident in what we also refer to as a spiral curriculum. So off I went to find out what our definition of 'spiral curriculum is and defend it against the writers and research studies commissioned by the B.C. ministry of education. I found out that what is being criticized in this article is not what we refer to as the Montessori Spiral Curriculum. Montessori's spiral curriculum is also known as the "cosmic curriculum" and also a "fusion curriculum". Essentially it is an integrated curriculum that supports planning at the interdisciplinary level. To avoid the smorgasbord problem, teachers are active curriculum designers who determine the nature and degree of integration and choose the scope of study depending on the year and ability of the student. The sequence of the lessons given are determined by the Montessori methodology. A methodology derived by Maria Montessori's observation and development of the well-tested experiments that were originally conducted by psychologists Itard and Seguin and supported by the theories of 'constructivist' psychologists Erickson and Piaget.

What distinguishes our curriculum from the 'spiral curricu-

lum' referred to in the article is that at BBMH, in addition to using the prescribed version of lesson sequencing according to Montessori's manuals, we are able to do more. Through curriculum planning we deliberately integrate our curriculum across subject areas. We creatively solve the problems that occur when lessons reflect the need to overcome fragmentation, relevance and the growth of knowledge as dictated by the individual learner and their learning 'style'. By designing our curriculum from 3 to 13 years of age, we pay attention to what direct aim each material teaches. Montessori materials differ from 'learning resources' in that they teach specific learning objectives which we refer to as 'direct aims'. The Great Lessons offer an introduction to each subject area. They are told and retold. Their aim is to give a *cosmic story of the universe* – to tell the origins of math, language, zoology, geology and history. Each telling sends the students into a different realm of the subject area. Overlying this is the implementation of curriculum sequence and this is linked to appropriate activities dictated by age and experience. This is why we are able to 'follow the child' - a term used by Montessori to remind the teachers to 'pay heed' to the authenticity of their roles and responsibilities as guides for children as opposed to being teachers of children. The children 'teach' themselves using materials, the directresses guide them to materials that will help them to learn. At BBMH we are not experimenting with curriculum, nor are we modulating our methodology based on the latest and greatest emerging data about educational practices which may be influenced by the political party of the day. We are enhancing a tried and true educational system, used for over a hundred years. The principals are

steadfast. They include a prepared environment and a prescribed methodology.

In the study it cites that the U.S., which uses the spiral curriculum, registered a poor performance in the Third International Mathematics and Science Study (TIMSS). It says that "students in Quebec – which had retained a sequential curriculum – were outperforming other Canadian students in math" A study was conducted and the results showed that B.C. students (also using the spiral curriculum) were on average more than two years behind in math by Grade 10 than their Quebec counterparts. "The range of skills and operations within a specific topic area is deeper in Quebec, moving constantly between the abstract and concrete properties of mathematical concepts and maintaining a place for mental as well as rote processes. [Whereas] the B.C. curriculum is inconsistent in its treatment of abstract and concrete concepts". This is not news to us at BBMH. Remembering that Montessori materials teach the concept, through practice and repetition students learn what 'addition' is. Teachers in traditional settings refer to learning resources as 'manipulatives'.... In traditional schools the concepts are taught through textbooks and are supported, depending on the creativity of individual teachers, by manipulatives. The materials in our curriculum are sequenced and move from concrete to abstract (which implies mastery). Comparatively, the BC curriculum moves from abstract which is supported by concrete but may only touch the surface of the concept before moving onto another 'subject'. This is particularly noticeable in the area of multiplication or geometry. Students in Grade Three are to learn multiplication facts to 50. On the other hand

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REMINDERS

March 14, 2005
Last Gymnastics Class for Int. Class

March 16, 2005
Sierra Club Visit Elementary

March 18, 2005
Last day of School

April 4, 2005
Return to school

April 5—8, 2005
Intermediate at SPL

April 11, 2005
Primary Field Trip to Aquarium

April 14, 2005
Animal Hospital Field Trip for Preschool

April 22, 2005
Earth Day



Message from the Academic Director - continued

once a Montessori student begins to 'memorize' multiplication tables (usually in Year Two), they have already been exposed to the principles of multiplication at least a dozen ways beginning in preschool with bead chains and the golden bead material, reviewing again in Year One with the golden bead material, stamp game, bead chains, little multiplication with beads and the checkerboard! This example demonstrates our application of a sequenced curriculum and movement from concrete to less concrete to abstraction and from the whole (big picture of multiplication process) to the parts (individual facts). It also illustrates how we have integrated the curriculum as we have touched on history (the introduction to time), geometry (bead chains to squaring) and language (story of numbers and the etymology of mathematical terms).

In order to achieve a thorough integration of our curriculum at BBMH it is important to note the essential elements which allow us to implement our program. These are:

- ♥ Teachers spend considerable time planning integration of the work
- ♥ We have a 'collegial' team
- ♥ The team has a thorough understanding of sequencing and scope and review this weekly
- ♥ We teach students skills deliberately

It is because of this that the following outcomes are realized:

For Students	For Teachers	For Parents
<ul style="list-style-type: none"> ♥ remember more, ♥ are enthusiastic about school, ♥ participate at a higher level, ♥ know their contributions are important ♥ accept differences ♥ appreciate strengths and talents of classmates. ♥ want to attend ♥ increased homework completion ♥ hold better attitudes towards school 	<ul style="list-style-type: none"> ♥ more creative ♥ enthusiastic and collegial ♥ use their time more effectively ♥ develop personal and professional pride ♥ share and support each other more ♥ feel less isolated ♥ create a more relevant and flexible curriculum in tune with the needs and interests of students and community 	<ul style="list-style-type: none"> ♥ high level of involvement ♥ high level of access to teachers ♥ understand scope of work ♥ have access to curriculum ♥ understand goals for students ♥ know role of home in student's life

It is our passion and interest in education that has led the teaching team at BBMH to seek this environment to work. We are known as a reputable educational institution among the Montessori community and throughout Ladner and Tsawwassen District schools. Any criticism of BBMH, even in context of this article about B.C. public education, leads us to evaluate both ourselves and the criticism. Personally, criticism and judgment about Montessori education has motivated me to analyze whether we are and continue to be effective. From the beginning of my tenure at BBMH, this process of evaluating and analyzing the Montessori methodology has held my attention. To this end I have led the staff to uphold the Montessori curriculum while incorporating new ideas which would support our students wherever they are and whenever they leave us for other schools. We jokingly refer to this process of how we incorporate new ideas as 'montessori-izing'. Cathy often refers to it as creating 'rationale'. The effect of this process of integrating Montessori cosmic curriculum at the subject level, from classroom to classroom and with the best in educational practices results in helping our students to improve their thinking and learning skills reference. We want them to develop a deeper understanding of subject matter and to be more proactive in their conduct as thinkers and learners. Ultimately we look for them to be able to apply their knowledge of skills to new situations. Ultimately we look to them to show us that they are able to move society forward or as Montessori said in her poetic style..."In his life we have read the answer to our problems and the key to the hidden secret of our life. The child enables us to discover all we had lost, to remember what had been forgotten and buried in the depths of time, faded away from our memory. The child is our teacher of good work and fair love."

Articles that imply that B.C. students are poor performers and then blame the spiral curriculum only emphasize the limited scope of information that the writers have about the educational process. The test results, based on graded outcomes which are often a result of natural ability or talent, do not address an appreciation for the level of effort made by students who may have grades of C+ or B and we all know of 'straight A' students who were clearly not citizens of the world. In another study done by Sharon Dubble Kendall, Ph. D. finds that "in order to address growing concern regarding lack of motivation, initiative and problem-solving ability among students, educators must consider the development of autonomy as a goal of the education process. This demands a new view of the role of

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education, focusing less narrowly on skill development and transmission of societal values, and instead seeking the broader development of human potential and emphasizing the interaction of the child and environment.” Montessori students, in her study, demonstrated a greater degree of autonomous behaviour. They were able to self-evaluate and self-direct. “Although initially attracting attention due to its effectiveness in raising academic achievement, Montessori programs are known as beneficial in increasing motivation and initiative in its students.” Unfortunately there are not external grading systems for the outcomes that tell you what or how our students will be when they grow up but I can assure you that the spiral or fusion or cosmic curriculum offered at BBMH will serve them well – and I am willing to bet that they will all be able to count their change.

PRIMARY NEWS

With the time we have just ahead of Spring Break, every day is filled with important work to do.

One of the most interesting opportunities in our curriculum are the science experiments based on Montessori’s Great Lesson—Story of the Universe also known as God Without Hands. These experiments demonstrate the laws of physics and illustrate the aspects of the story that explain the origins of our universe.

Our lessons in Geography are nearly complete. The Year 1 students have now completed their individual maps of North America using pencil crayons. They were well prepared for independent work after working in pairs using plasticine to show the elevation of land. They make a legend and label it, find the major oceans, rivers, lakes and mountain ranges. After hearing about these land and water forms, they now see for themselves where they fit the picture. The Year 2 children have made impressive maps of Canada showing physical details and political boundaries. Their map skills are becoming more precise and they are filled with information on our country. The Year 3 children have become nearly 'experts' in creating maps and their work on British Columbia is outstanding. The order of making maps follows the Montessori sequence of showing the big picture first and moving to the details of the smaller parts with closer study. The Year 3 children have embarked on their fact-finding lessons brimming with knowledge derived from their work. They are eagerly motivated to be detectives who look for additional facts and will learn to organize them, select the most relevant facts and write paragraphs that form a report on B.C. It is a joy to work with such informed, motivated students!

After much practise with our math materials, the children are now required to round out their recall of facts by training their memory. Please be supportive, in a relaxed yet purposeful way, to help your children memorize addition and subtraction facts for children in Years 1 and 2 and multiplication facts for children in Year 3. A little practise every day, sometimes twice a day, and the task becomes a *fait accompli* if done as a game that is fun.

Calendar

March	11 Newsletter
	14 Observations
	15 Observations
	18 Reports Distributed
	21 Spring Break
April	4 Return to School
	5 Intermediate Camp
	15 Newsletter
	22 Earth Day
	29 PDDay 5
May	8 Mothers Day
	9 Sign up for conferences
	13 Newsletter
	18 SL Conference
	23 Victoria Day
June	10 Newsletter
	15 Sports Day
	19 Father's Day
	23 Concert
	24 Picnic



Intermediate Class Update

Intermediate students have been extremely busy organizing for the History Fair and Banquet. They have arranged wonderful presentations, food and costumes from their time period. Please browse the Intermediate room to view the art and presentations of early humans, early civilizations, and the middle ages.

In science, the students have conducted controlled experiments to determine the cause of local wind flow patterns associated with differences in the rate of cooling of land and water bodies. As part of this work, they have reviewed the scientific method and identified the variable that may affect experimental results.

Novel Studies have been completed by all students. Yr.4 read *Charlie and the Chocolate Factory*, Yr. 5 *Island of the Blue Dolphins*, and Yr. 6/7 *The Giver*. Students are making dioramas, plays and book reviews about their novels as a summary of what they have read. It is amazing how much the children enjoy working in plasticine and lego to make models of their stories. These will be on display starting March 14th.



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News from the Preschool/Kindergarten class

The goal of human love is not the egotistical end of assuring its own satisfaction--it is the sublime goal of multiplying the forces of the free spirit..."

Maria Montessori

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What's new? A new student will be joining our class in April. Leena will be entering our class as a second year student from a Montessori school in Vancouver. We welcome her and her family as newcomers to the community.

What's been happening? Our field trip to the Vancouver Symphony was a great success! Many thanks to all the volunteers who helped to create an organized and successful outing. Also thanks to our devoted and talented Music teacher, Judy Fulton, for making the arrangements and preparing the children for the event. We were delighted with our visiting Cellist, Angela James, who shared her instrument with us and allowed the children to all 'have a go at it'.

What's coming up? We will be visiting the Tsawwassen Animal Hospital on Thursday April 14th. This is our chance to have the rabbits examined and provide the children with an opportunity to become familiar with a Veterinarian Hospital. More details TBA. **PARENT OBSERVATIONS:** please sign up for your 20 minute observation. **SPRING BREAK IS TWO WEEKS THIS YEAR.** Enjoy your holiday! - Jana and Andrea

Family Advisory Committee—Playground Update

This weekend we will be finishing the intermediate playground. Work parties are needed for Saturday, March 12th and Sunday, March 13th. The work that will be undertaken will include:

- ♥ Grading (on Saturday),
- ♥ Laying sod (on Saturday and Sunday),
- ♥ General definition of the river alignment, and
- ♥ Sweeping the paved area of the playground.

If you are able to help out please send confirmation to the school, either by email or phone call, or by contacting Bruce Gillespie or John Larsen.



Blueprint Update

1.2.10. Active learning: We promote active rather than passive learning by...

1.2.10.1. Encouraging spontaneous activity in education by supporting students to pursue self-directed studies in areas of their personal interests.

1.2.10.2. Using hands-on, 'experiential' learning whenever possible rather than lecture and drill. Including concrete manipulative learning materials, experimental discovery, seminar discussions, independent library research, field investigation, or computer simulations, etc.

1.2.10.3. Allowing students to experience a sense of accomplishment in two ways:

1. by achieving learning outcomes through CBA (Criteria Based Assessment); and
2. by allowing the students to become fully engaged in personal discovery.

1.2.11. The Passage to Abstraction: To facilitate this process, we consistently work from a very concrete level of experience to the abstract. To aid students in learning, we begin by giving them the "big picture" and work from this toward an increasing level of detail. This concept has been integrated in a spiral curriculum in which skills and concepts are presented and reintroduced at increasing levels of complexity and abstraction over the years.

BBMH MISSION STATEMENT

Boundary Bay Montessori House will offer a quality educational program for children that remains true to the spirit of Dr. Montessori's philosophy of education to help equip them with the tools necessary to become independent adults while allowing their unique personalities to unfold.