



Pacific
Crest
School

Middle School **Handbook**

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Pacific Crest Montessori School

The Middle School Program

The Pacific Crest Middle School serves adolescents 11-14, in grades 6-8. School life takes place primarily at the urban campus in Ballard and on the farm campus on Vashon Island. The student body is comprised of roughly 60% of students from our own Montessori elementary program and 40% from other schools.

The cornerstone of Montessori philosophy is the understanding that a child passes through distinct phases of development in the pathway to adulthood. A child in each stage possesses different characteristics and has different needs. These characteristics are honored and the needs are met at each stage through specific components embodied through Montessori education.

The following are present in all levels:

- The Prepared Environment
- The Prepared Adult
- Mixed Ages
- Freedom of Choice / Freedom of Movement
- Respect for Work
- Lessons of Grace and Courtesy

In Montessori education, the young adolescent is recognized as someone in the "third plane of development". This plane includes ages 12-18 and middle school students fall in the beginning half of this plane. The first half of the third plane is a time of great change, a rather tumultuous time physically, intellectually, emotionally, and psychologically.

"The adolescent must never be treated as a child, for that is a stage of life which he has surpassed. It is better to treat an adolescent as if he has greater value than he actually shows than if he has less and let him feel that his merits and self-respect are disregarded." (Montessori, *From Childhood to Adolescence*, p.72)

Middle School Values

From the MS Scroll, written by PCMS students.

As members of Pacific Crest Middle School,
We are committed to creating a vibrant community with all of our fellow students, teachers, families and neighbors. We therefore strive, together and individually,...

- to act with compassion;
- to respect and be kind to each other;
- to challenge ourselves;
- to keep our minds and hearts open;
- to keep learning, always;
- to be patient and honest
- to have fun;
- to look for what we can be grateful for; and
- to trust ourselves and each other

The Adolescent

Maria Montessori describes the adolescent as being in a: *"sensitive period when there should develop the most noble characteristics that would prepare a man to be social, a sense of justice and a sense of personal dignity."* (FCTA, p.63)

Characteristics of the Adolescent - "The Social Newborn"

- "The adolescent is a mystery" – we don't know them because they don't know themselves
- They are asking "Who am I?"
- Focus on peers – the time of "The Social Newborn"
- Puberty and physical growth
- Tendency towards creative work
- Resistance to work for work's sake
- In a state of expectations – "What is it like to be an adult?"
- A sense of justice
- A sense of personal dignity
- Intensely aware of beauty and significance of their friends
- Very sensitive to perceived criticism, ridicule, and humiliation – "The Imaginary Audience"
- Doubts and hesitations
- Decreased ability to concentrate
- Increased ability for reflective thought and abstraction

Needs of Adolescents : "Help Me Find Myself"

- Need a village of caring people
- Need for a community of peers – membership and belonging is of utmost importance
- Need to feel valued within the group / to have a role
- Need for adult mentors
- Need to work side-by-side with adults
- Need for unconditional acceptance by adults: need to know that adults care but within clear boundaries
- Need a balance of challenge and skills
- Need a source for meaningful work
- Need time in nature
- Need time at the farm
- Need opportunities to express their dynamic internal life – lots of creative avenues
- Need experience with language
- Need time for self-reflection
- Need to acquire economic independence
- Need to see an individual's role within society
- Need the opportunity to develop moral and spiritual equilibrium by interacting with others collaboratively, responsibly, and with compassion.
- Need to feel capable of succeeding in life by their own merits
- Need to have faith in humanity and optimism about the future

Expectations

We expect, first and foremost, that all members of the Pacific Crest community will adhere to the following principles:

- Treat all members of the school community with respect.
- Be willing and prepared to participate fully every day.
- Commit to work of the highest quality every day.

Work Expectations

- Come to school on time.
- Come prepared with completed work, as well as the necessary supplies and materials.
- Work during the work period.
- Meet all deadlines.
- Use the planner as a tool for time management as well as communication with parents and staff.
- Meet regularly with your mentor adult to clarify personal goals and check progress on work.
- Take risks as a learner and community member – be willing to try new things and set challenging personal goals.
- Respect the environment as a communal work place.

Behavior Expectations

- Safety for all is the highest priority. No behavior can compromise the physical, emotional, or psychological safety of any member of this community.
- Help maintain a productive and respectful workplace for all – behavior in class and in the work period should demonstrate a consideration for others in the community and a commitment to the work.
- Come dressed to work. Clothing must be practical, modest, and free from inappropriate or offensive slogans or images.
- Language within the school must be appropriate for all ages, especially in the presence of the very youngest members of the community.
- Participate fully in all aspects of community life--art studio, academics, occupations, physical education and social activities.
- Demonstrate the highest level of courtesy and safety while on outings.

Daily Life

Schedule

The school year follows a semester schedule, with roughly 18 weeks per semester. The annual calendar includes notification of half-days and days off.

For the middle school student, their daily schedule may look differently from the daily schedule they might have encountered in elementary or in a traditional school. About half of their week will be unscheduled time and half will be filled with scheduled class-times. Unscheduled times are called "work periods". Part of the Montessori education includes long stretches of uninterrupted work time, where the student has the freedom to choose their own work, the extra time to commit to extended concentration, and the opportunity to manage their own schedule.

Work Periods

Scheduled class time consists of activities described in the curriculum section, but during open work periods students are expected to settle into a dedicated work space and commit to a work of their choosing. Often students work with their peers, and the work periods are bustling and chatty.

Work periods are good times to schedule time in the art studio. There aren't any formal art sessions, so students are expected to use their own open schedule to find time for their art work. Additionally, work periods are excellent times to participate in occupations, electives, and community events.

It is an expectation that students learn to utilize their work period times effectively and efficiently. It is *not* an expectation that students do this particularly well during their 6th grade year. Learning to prioritize, manage time wisely, and balance responsibilities with choices is one of the most important developmental processes these students go through. The schedule is part of the prepared environment here in the middle school : because they have a great deal of open work time, they are given the freedom to choose their own work, but also the responsibility to make wise choices. Balancing this all is part of their journey.

Organizational Tools / Skills

To help them figure all of this out, we give them a few key tools. First, they are given a planner at the beginning of each semester and a special one during play season. The planner is set up with their weekly schedule, a monthly calendar, and spaces for them to write out all of their assignments. The planner is **essential**. Having a written point of reference for both students and parents to see what work is due and when is key. It is our expectation that students bring their planner with them to each of their classes and that they take the time to write out their own schedule and their work due. It also should be understood that the planner is a public document - both parents and teachers need to be able to look at the planner in order to best support each student.

As a parent, it is important to check your child's planner regularly as they begin middle school. If a student struggles to finish assignments or shows a regular tendency to forget work or procrastinate extensively, then the planner can be a key place to start

constructing a system of more active support. It is not unusual for a 6th grader to lose the planner, or forget to write in assignments, or write vague notes in the place of specific assignments. In this case, a chat with the mentor teacher and a more active role in work management is appropriate. As a student gets older and demonstrates regular trustworthiness, then it is more appropriate to relent and let each student take full control over planning their academic life. Ideally, independence in time management is the goal.

Technology

Technology in this digital age has proven to be an incredible tool, but also a wildly enticing distraction for the adolescent. In general, our approach to the use of computers and other technology is one of cautious support. We encourage the use of technology for intellectual and creative pursuits, but offer guidance in internet research, lessons in online grace and courtesy, and forums for discussion of digital culture issues.

Computers are available for use, but students may also bring their own laptops. Individual laptops are neither a requirement, nor necessarily a suggestion. Computers are expensive, and students are wholly responsible for the care of their machines. Each student is issued a Pacific Crest Google account which gives them access to Google drive operations. This is specifically not an email account, and is relatively limited in its usage by design.

Other types of technology are restricted. Phones are permitted, but must be turned off and turned into the security box during school. A land line is available for calls both in the middle school building and in the staff room of the main building. Cell phones caught being used during school hours are confiscated for the day. Digital cameras may be used for a project, with permission. Gaming systems are not allowed.

Students and parents must sign a technology policy prior to using any computer. The agreement outlines appropriate computer usage, including the understanding that computers are used strictly for school-related work. Internet surfing and the use of social media sites are not allowed.

Late Work/ Late Slips

Late slips are written by the subject teacher when the student has missed a deadline or does not hand in an assignment by the due date. One copy is kept in the Open Studio for the mentor teacher and work period teacher to see and another copy is sent home for a parent to sign. Mentor teachers meet with students to come up with a plan to catch up on any late work, and parents will be contacted if lateness becomes a pattern.

Learning Support / Tutoring

The middle school faculty can arrange for a student to receive assessment and tutoring support from our school's learning specialist for reading, writing, spelling, or homework support. Individual learning support may be available at no cost for up to one half an hour per week. Students with *significant* remedial needs would be encouraged to seek additional learning support, apart from the learning specialist at school. Students may choose to hire a tutor to come to school during the day to work with that student, during one of the open work periods. Tutors must be approved and agree to work closely with the mentor teacher. Before a tutoring arrangement is made, a formal assessment should be completed. Parents are responsible for initial consultation, testing arrangements, payment, and informing tutors of absences.

Example of a weekly schedule:

	<i>Monday</i>				<i>Tuesday</i>			<i>Wednesday</i>			<i>Thursday</i>			<i>Friday</i>		
8:30	All School Check In				WW 1	Sci 1		Community Mtg			Humanities			WW 1	Sci 1	
8:45								Book Discussion								
9:00	Mentor Meetings							Silent Reading								
9:15					WW 2	Sci 2		Flex			WW 2	Sci 2				
9:30	Math 1B	Math 3A	Esp 7					PE B						Math 1B	Math 3B	Open Work
9:45	Humanities				Open Work			Lunch			Lunch					
10:00																
10:15																
10:30																
10:45																
11:00																
11:15																
11:30																
11:45	Lunch				Lunch			Lunch			Lunch					
12:00																
12:15																
12:30	Math 1A	Math 2B	Esp 8		WW 3	Sci 3	.	Esp 6	Math 2A	.	Math 3A	Esp 7	.	WW 3	Sci 3	.
12:45																
1:00																
1:15																
1:30																
1:45	Math 2A	Math 3B	Esp 6		WW 4	PE A	.	Esp 8	Math 2B	.	Math 1A	WSH	.	WW 4	PE C	.
2:00																
2:15																
2:30																

Role of the Mentor Teacher

"It is very important to consider the relation between child, the teachers, and the environment. The teachers must have the greatest respect for the young personality, realizing that in the soul of the adolescent great values are hidden, and that in the minds of these boys and girls lie all our hope of future progress. The intimate vocation of man is the secret of the adolescent. If social progress is realized through the succession of generations then these children, as they grow up, will become more highly developed than their adult teachers." (Maria Montessori, *Communications 2011/1-2*, p. 83)

Each student is assigned to a mentor teacher who oversees a mentor group of eight to ten students. The mentor group meets once a week (Monday mornings), and the mentor teacher "checks in" with each mentor student weekly or as needed to keep track of each student's academic, social, and emotional development.

The role of the mentor teacher is to:

- Maintain lines of communication between parents, students, and staff.
- Oversee academic, social, and emotional development, communicating with each student and his/her subject teachers, staying informed about the student's subject work, organization, time management, friendships, and community involvement.
- Report academic, social, and emotional development by hosting student/parent/teacher conferences in the 1st and 3rd quarters and completing written evaluations of student progress at the end of each semester.

Communication

Clear and open communication and a strong partnership between students, parents, and teachers are key elements to the successful development of the adolescent. The transition to adolescence is a crucial time to stay involved and close with children (even though at times that may be starting to define themselves outside of the family unit). Dr. Montessori described adolescents as "social newborns," as they are pushing outwards socially and developing themselves in the context of their society.

Staying involved in the school community by volunteering or stopping in during drop off or pick up times is a great way to stay present in the school community.

Mentor teachers are available via phone or email and are willing to meet to discuss the student's development at any time in the school year. Please do not hesitate to voice any questions or concerns that you may have. Our door is also always open.

Conferences

Conferences (1st and 3rd quarters) and written evaluations (at the end of each semester) are the key reports that offer insight into the student's development in the school community.

The conferences are student-led and serve as an opportunity to celebrate the work each student has been working on or has completed at that point in the semester. Students

prepare for the conference by writing self-evaluations, having conversations with mentor teachers, and by selecting their most successful recent work.

Mid-quarter Update

Mid-quarter updates are sent home halfway through each quarter. These brief updates are designed to inform parents if their student is missing work in any area of the middle school program.

Reporting

Written evaluations are completed by each mentor teacher in collaboration with the other subject teachers at the end of each semester. These evaluations are based on effort and achievement in the student's academic, social, and emotional development. Students' effort and work is evaluated in each subject, as well as work and study habits (completing work with care, time management, and commitment to personal effort) and social/emotional development (respects rights, ideas, feelings of others, contributes to community, and accepts responsibility).

Reports and statements of student progress are not limited to these quarterly reports. Mentor teachers may contact parents with updates or concerns as they may arise. Parents should also check in with mentor or subject teachers if questions or concerns arise.

As students switch subject teachers each semester (in humanities, science, and writer's workshop) or each quarter (in book discussion), subject teachers meet with mentor teachers and the future subject teachers to discuss student progress, goals, and area that may need work or improvement in the coming semester or quarter.

Supporting Your Child

Each child is on their own path of development. Just as toddlers begin to walk at varying ages and individuals hit puberty at different times, the mind of a middle schooler also moves at its own pace. Their minds are transitioning from concrete thinking into more abstract thinking; this process is developmental and gradual.

They still need you...to a point. Adolescents are moving away from the traditional source of support - the family - and finding support in their peer community. This means there may be new resistance to family interaction and support, and greater interest in being with their friends. However, adolescents need to know they are cared for, listened to, and respected by the adults in their lives. Even when they resist adults, they need and want boundaries.

In terms of their school work, here are some key ways you can stay involved and informed, while supporting their path to independence:

1. Talk to us. Let the mentor teacher know as soon as possible if issues arise.
2. Help your child create a special time and place to do work at home. Try to allot an hour of dedicated work time after school. If there is not much school work due, then the time could be used to write, read, practice Spanish, plan a meal for the family, etc. Maintaining a consistent expectation of work time helps your child plan the day.
3. Let us know if your child is doing more than 1 hour of homework a night. This may indicate that they aren't using their time at school well or that they need extra learning support. We want to help them learn to use their work periods efficiently, to prioritize, and to plan ahead. If they are doing hours of work every night, this is a clear sign something is amiss.
4. Check the planner. Assignments should be written down. If not, let us know.
5. Encourage your child to get involved in *all* aspects of middle school life, not just academics.
6. Keep us informed on your child's stress levels. If there are breakdowns at home, but everything seems fine at school, then we need to know.
7. Keep your child informed about the family's schedule. Family activities definitely come first, but if there is going to be a trip this weekend, your child needs to know they can't count on that time to do work. There are several classes on Mondays, so there is often work due.
8. Pay careful attention to screen time. Computers should be kept in public spaces and phones should be put away for the night.
9. Adolescents should contribute to the family: cook meals, take charge of pet care, help with the yard work, etc. They should also help with shopping and make their own lunch - they are growing and will need more food during the day to stay alert.
10. Come into the building often! Volunteer with outings, events, and projects. We love to see you!

Curriculum Areas

ART

Former student, J. Burgess, was asked as she was about to graduate why she liked art and she replied, "Sometimes it is hard to explain things in words; to make real ideas that are in my head, to express how I feel and sometimes to vent. Also it feels nice, physically "

Maria Montessori wrote, "The chief symptom of adolescence is a state of expectation, a tendency toward creative work, and a need for the strengthening of self-confidence." (*From Childhood to Adolescence*).

Statement of Philosophy

The studio is set up for students to learn to be creative, to participate in an art studio as they learn about visual art, to develop their identities and to define themselves in the context of a community.

Thinking about what to put in the gallery, and what they care about in their art is an important part of how adolescents define and develop who they are. Sometimes art can provide a place to work out confusing and strong emotions. The studio, and especially the gallery, is a safe place for students to take risks and to see their work in relationship to the artworks of other students.

A major goal of the program is to teach the creative process by giving the students the freedom to develop their own ideas and then discover how to make those ideas real. Students have to figure out if idea should be a painting, a print, a drawing, a sculpture, etc.? Continuously generating ideas creates the need for students to adapt their process, to match maturing ideas. Developing new technical abilities builds confidence in students and expands the range of possibilities for new work, which starts to match maturing concepts. Ideas can come from playing and experimenting with materials or learning a new art process. Students also start to make art more intentionally reflecting what they care about. The real creative part comes in the turning the idea into a real project - solving the problem they have set up for themselves. This often leads the next problem or idea.

About the balance of learning with the head and the hands, Montessori said ..." the thing that is important above everything else is that the adolescent should have a life of *activity* and *variety*, and that one occupation should act as a "holiday" from another occupation." The art studio provides variety with a chance to work with their hands, and a way to think in visual terms.

Middle school students feel ownership of the studio probably more than any other place in the school. The student's participation in the community aspect of the studio and gallery is developmentally important.

Nuts & Bolts

Students are required to spend time in the art studio each week during open work periods, learning to manage time with their other work. They are to participate in all the art shows, usually at least 6, throughout the year. The mediums available are acrylic and watercolor painting, drawing, screen and lino-block printing, collage, mixed media, digital photography, and a wide variety of materials for sculpture. Techniques are taught in workshops or as needed by the student to fit with an idea, or when they want to try something new. Their gallery is the center of the middle school with ever changing shows as many students add new work during the weeks the shows are up.

In addition to personal projects, there are also opportunities for doing public art. Students may work on site specific pieces on the school campus and there is often a possibility of a larger mural or project out in the neighborhoods of Fremont or Ballard. The annual school play also provides a great opportunity for all kinds of theater arts.

Expectations

Students are expected to participate regularly in the studio, focusing on their own ideas or in collaborations with others on larger projects. Developing ideas and making work that satisfies them can be a challenge and is a process that takes time. Students must decide if the work is going to be humorous, wacky, dramatic, serious, personal, bold, political, etc.? Students can work on their own or in collaboration with others. Student work and their approach to their work matures from 6th grade to 8th grade in the quality of ideas and more intentional approaches to art, which can become quite sophisticated. Some students find, by 8th grade, that it becomes harder to generate projects that satisfy themselves, and more often than not, this becomes a time for them to make a jump to more significant work, as they strive to meet higher goals. Another goal of the program, and a prerequisite for art, is to have fun.

Outcomes

- For students to learn to be creative; the ability to generate ideas and make art based on these ideas.
- To help the student to develop their identity, build confidence, and to define themselves in the context of a community.
- To assist the student to feel comfortable and confident in expressing himself/herself.
- To have an appreciation for others viewpoints and ideas.
- To gain an appreciation and knowledge of visual art forms.

Writers Workshop

Statement of Philosophy

"Men do not ally themselves by holding hands, on the contrary, their hands must be free for action. Their true bond lies in their joint intelligence, and speech is the medium of [the] mutual understanding making this joint abstract intelligence possible. Without any doubt, language...must be considered as a human expression in [and of] itself, as an expression of man in the society of other men, and as the expression of the intelligence." (Maria Montessori)

"Whenever you are working with the adolescent to develop language, you are working with the adolescent to develop humanity" (Elise Huneke Stone, Concord, OH 2005)

The Pacific Crest Writers Workshop Curriculum is based upon the idea that language is a powerful and fundamental human tool that allows us to develop our own intellect and work in society with others. Our writing program seeks to develop a variety of writing skills in an environment that allows students to find their own voice, develop confidence in their abilities and create an authentic community. Learning to express ideas fully through writing refines thinking. Writing in a community allows students to develop an understanding of others – how to write for different audiences and purposes as well as the space between what is intended and what is actually communicated. Writing can be a critical tool for the adolescent work of identity formation. Through writing, we can try out different roles, voices and perspectives; we can reflect, give meaning to and clarify experiences and emotions; we can set out our own goals and problem solve different ways to achieve them. We also gain confidence by sharing work that is uniquely our own and learning that it is valued by peers. Through writing we learn to organize and articulate our thoughts and feelings in a way that gives us power.

Nuts & Bolts

We use a workshop model that allows students to develop their own projects and refine skills through adult and peer conferences and an intensive revision process. Each class begins with a brief mini-lesson aimed at developing specific skills. Topics range from genre presentations to grammar to revising techniques. After the mini-lesson, students have the remainder of class time to work. This time can be spent writing, conferencing with the writing teacher, giving or receiving a peer conference, or revising. While some students find this is enough time to complete all of their writing, most will need to spend additional time outside of class to complete their work.

Guidelines for the Writing Process

The 5-draft process includes writing, conferencing and revising. Throughout the process, students should get at least two adult conferences and one peer conference.

Topic Search / Automatic Writing / Brainstorming / Mind Map

This process is designed to help students discover an idea or topic they care about.

1. Write Rough Draft (Draft #1)

- This draft may be handwritten, in writing notebook or personal journal. This draft remains private and will not be required to be turned in with other drafts.
- First drafts are not always used as finished pieces, but should be kept.

2. Draft #2

Once a student decides it is a piece worth proceeding with, the next steps are:

- Type this draft and save to Google Drive account.
- Conference with the teacher and optionally a second conference with a peer.
- Revise content.

3. Draft #3

- Conference with a peer if that hasn't been done yet
- Another adult conference
- Revise Content

4. Draft #4

- Conference with adult or peer
- Self-conference and final proofread for grammar, spelling, and punctuation

5. Final Copy

- All drafts of piece should be attached together with a paperclip, with the Writing Piece Cover Sheet on top. The most current draft should always be right under this cover sheet.
- Submit final copy to teacher and when returned, store in writing portfolio.

Deadlines

Students are expected to complete a 5-draft process for the required number of pieces (as determined by grade level) for each deadline. There are typically 3 deadlines a quarter, or a deadline every 2.5 - 3 weeks.

- 6th Years: 3 final pieces / quarter
- 7th Years: 4-5 final pieces / quarter
- 8th Years: 5-6 final pieces / quarter
- Final Portfolio: Students are expected to create a final portfolio of all of their work from the year that includes a final self-reflection.

Expectations

The act of writing demands time, mental discipline and commitment to a process. To be successful in this course, students need to:

- Write regularly – Set aside a regular time outside of class to work on writing. Inspiration follows habit. The more regularly you write, the more easily you will generate ideas. Most students will not have enough time to meet the expectations for class within class meeting times.
- Seek & accept feedback – It's hard to know how completely the ideas in your head come through in your writing. Feedback will let you know what's working and what's not.
- Give peer conferences. Giving constructive feedback is its own skill and learning how to do it well will make your own writing better as you learn how to think about and articulate what it means to be a good writer.
- Make deep revisions – Use each draft to really try to make your writing better. Don't just make minor changes.
- Take risks and try new things – Don't just stick with what you can do well. Being willing to work on things that are hard is the best way to get better at something.
- Participate in the writing community – Writers don't write for themselves alone. Share your work and listen to the work of others. The more we all share our work, the better we will all be.

This course is designed to be a 3-year process. Students start where they are at and may work on a variety of skills in different sequences. However, by the end of 8th grade, students should have mastery of the skills and understandings listed below.

General Expectations for 6th Grade

Many students begin 6th grade without much confidence or experience as writers. This year is about trying new things and gaining confidence. We expect 6th graders to be open to the process, experiment and hopefully fall in love with writing.

General Expectations for 7th Grade

By 7th grade, students should commit to taking full advantage of the revision process, making deeper revisions and challenge themselves by trying things outside of their comfort zone. Seventh grade students work to refine their skills in the genres that they feel most comfortable and at least write one piece in each genre they feel less confident in. In 7th grade, students will take the standardized state tests and will receive instruction by grade level for specific skills such as persuasive writing.

General Expectations for 8th Grade

By 8th grade, students should feel comfortable writing in most genres, so it is really a time to hone their internal editing and refine skills– particularly research and analytical writing - and demonstrate sophistication in their ideas and execution. As a culminating project, 8th graders will complete a 6-10 page research paper for Washington State History. Creating an original thesis and learning to use research to craft an argument is a focus of this project.

Outcomes

- An appreciation of the power of language
- Confidence in one's own ability to express ideas through writing including an understanding of grammar and conventions
- An ability to write for different purposes and different audiences including narratives, informative/explanatory texts, and persuasive and argumentative writing.
- The ability to evaluate writing – to self-reflect and self-edit as well as give constructive feedback to others
- The ability to generate one's own writing projects
- Experience sharing work with others

MATHEMATICS

Statement of Philosophy

Mathematics are necessary because intelligence today is no longer natural, but mathematical. Without development and education in mathematics it is impossible to understand or take parting any of the special forms of progress characteristic of our times. But even in the natural state the human mind has a mathematical bent, tending to be exact, to make measurements and comparisons. (Montessori, "The Reform of Secondary Education", 1939)

In her *Educational Syllabus* designed for the adolescent, Dr. Montessori placed mathematics under the category of "Psychic Development" along with language and moral education. Dr. Montessori saw mathematical thinking as a fundamental human intelligence that allows the adolescent to interact with his/her surroundings in the natural and manmade world. Through human history, mathematics has been a key ability that has led to effective human collaboration and activity. As the students transition into adolescence, their capacity to think and reason abstractly increases dramatically. The math program provides opportunities to refine key mathematic skills, improve as a problem solver, and to learn and apply pre-algebraic, algebraic and geometric concepts.

Nuts & Bolts

We use the University of Chicago School Math Project's *Transition Mathematics, Algebra*, and sometimes *Geometry* textbooks, as well as other resources. There are usually two sections of math per grade that may move at different speeds based on student comfort. The 6th grade students start the year with an arithmetic review and eventually start in the *Transition Mathematics* textbook, reviewing key skills and introducing concepts of algebra and geometry. Seventh grade students continue work in the *Transition Mathematics* text before moving into the *Algebra* text, usually halfway through the year. Eighth grade students continue work in the *Algebra* text and finish the year by taking a high school end of course exam, which depending on the school and student may place the student out of Algebra I in high school. Depending on the group, 8th grade students may also begin work in the *Geometry* text.

Expectations

Class Participation

Students are expected to participate in class lessons, take notes, and come to class prepared (with their work due that day, pencil, textbook, math notebook/binder, and math logbook). Students write notes and examples in their notebook/binders, and write key terms, definitions, and properties in their logbooks.

Work

- Student's name, class, and date should be written neat & clearly at the top of the first page, along with the assignment number and the section number(s). Please staple work together if there are multiple pages.
- Use standard size graph paper (8.5" x 11").
- Work should be completed neatly & clearly in pencil preferably.
- Students should show their work. Show the step(s) in between the question and the answer.
- Final answers should be marked clearly, for example, by underlining or circling it.
- Work should be checked before being turned in.

Assessments

- Chapter tests: Math provides a great opportunity for students to practice the skill of test-taking. Tests are administered in a formal setting at the end of each chapter of the textbook, and a final exam wraps up the work at the end of each year. Teachers grade and score the percentages on the tests. Students may be asked to correct their errors and may be given the opportunity to retake the test, especially if the score is less than 70%.
- Standardized Tests: Students take the Washington State standardized test in the spring of 7th grade, and they also have the opportunity to take the Algebra I end of course exam in 8th grade if they wish to try to place out of that high school course.

The math builds on the work that has been done in the previous years and in elementary; each year provides key benchmarks and skills that build on what has been done previously. Although the specific outcomes may vary slightly depending on the individual and group, students often leave the Pacific Crest math program with strong math skills and ready to tackle high school Geometry.

General Expectations for 6th Grade

Our goal is for students to grow to love math, feel comfortable and confident solving problems, and practice the taking tests. Note-taking and showing work are key skills to work on this year. Students are encouraged to work at home and at school on arithmetic skills of addition, subtraction, multiplication, and division. Students also work with fractions, decimals, percents, and negative and positive numbers to solve a variety of problems. Students are also exposed to geometry (solving with formulas) and algebra (solving for variables).

General Expectations for 7th Grade

7th grade students should feel comfortable taking notes and participating in class presentations. Students will wrap up their work in the *Transition Mathematics* textbook and begin work in the *Algebra* text. Students should feel comfortable solving problems using the four basic operations with integers, fractions, decimals, and percents. Students should be more comfortable solving problems with variables and graphing algebraic equations.

General Expectations for 8th Grade

8th Grade students should grow more comfortable with the language of algebra and the ways it is used in the real world. Students should have a strong foundation in factoring and distributing algebraic equations and linear and exponential growth. Students will have the option of taking the Washington Algebra I end-of-course exam, which may place them out of that course in high school, and depending on the group, students may move into the Geometry textbook.

Outcomes

- An appreciation for math.
- Confidence as a problem solver.
- Understanding of the language of mathematics and an ability to use arithmetic and algebraic skills to solve real-world problems.
- Strong foundation in arithmetic and multi-step problem solving skills.
- Understanding of the fact that multiple pathways exist to a mathematical solution.
- Ability to check and correct errors and mistakes.
- Comfort taking tests (including students being able to reflect on their developing skills and knowledge when approaching problem solving in an assessment format)
- Mastery of key algebraic concepts.

Science

Statement of Philosophy

"When we try to pick out anything by itself, we find it hitched to everything else in the universe" (John Muir)

Science is a way of explaining the natural world. It is both a method of inquiry as well as the historical accumulation of knowledge gained through controlled experimentation. The goals of our science courses are to learn about the natural world, to examine how we know what we know, and to develop an appreciation of the role of science in human history. We aim to help students view the world through a scientific lens; for them to question what they observe, have the skills to serve their curiosity, and be able to draw conclusions from acquired data. Our methods are based on the understanding that as a study of the natural world, science is related to everything, and that the adolescent must be prepared to live in and care for the world in which they were born. As a result, science is presented with practical applications in a social context. As we study scientific achievements, we look at the human impact on the natural world, discover our responsibilities, and engage in debate about ethical and moral questions. We attempt to provide students with tools, knowledge and freedom for developing their own creative solutions to problems they might face, may they be practical, philosophical, or moral. Our science courses are also built around the idea that the natural environment is both place and teacher. As much as possible, we study our local environments. Our urban environment and the Pacific Crest Farm are laboratories for observation and experimentation.

Nuts & Bolts

Science classes are composed of mixed ages and our science curriculum cycles through each of the three courses listed below over a three-year period. Just as the natural world is made up of interconnected systems, our studies are somewhat fluid as we explore how each discipline is linked to the others. Studies in one discipline might lead students to exploration of topics more typically associated with a different scientific discipline. In that way, students are exposed to recurring themes, ideas and connections over three years.

Biology

The course explores living things as well as the ecosystems they make up. This course includes studies in:

- Botany
- Ecology
- Natural selection
- The human body
- Genetics
- Nutrition

Earth Science

This course studies the systems of the earth including:

- Land: the rock cycle, layers of the earth, plate tectonics, volcanism, earthquakes, topography and erosion

- Air: the physical properties of gasses, weather and climate
- Water: the properties of water, water usage, water pollution, watersheds and local water bodies

Physical Sciences

This course explores the mechanics of the physical world through projects and extensive research in the agricultural process, mainly based on the farm campus.

- Agriculture
- Physics
- Chemistry
- Applied Engineering
- Astronomy

Science classes will use a variety of activities to develop key skills and concepts. Students learn about the natural world through readings, class presentations, outings and class activities. Often the class will pursue a topic of study and students are given the opportunity to follow individual interests within the framework of the broader topic. Coursework will include research, observation, data collections, experimental design and implementation and problem solving. Students will practice sharing what they know through written and oral communication skills including taking notes, drawing diagrams, making graphs, writing reports, engaging in debate and giving formal presentations.

Reading

We aim to develop student's ability to glean information from expository texts and to interpret graphs, charts and reports. Student readings for the course are collected from many sources, including textbooks, adult nonfiction, raw data collection, periodicals, history writing, textbook excerpts and poetry. Some materials may be challenging to some readers. Class lessons or discussions are often used as an introduction to reading assignments. Vocabulary work, pre-reading questions and comprehension questions are often posed to help students develop strong expository reading strategies. However, we do not want reading to become an obstacle to content. When there are reading difficulties, parents, teachers and the student should communicate so teachers can find alternative readings and sources of information.

Outings

Outings provide a unique opportunity to study the natural world. Students experiences at the farm is a key component to the science program. Additionally, science outings may include hikes, trips to local bodies of water, visits to museums and learning centers. Sometimes simple walks around the neighborhood provide an opportunity for scientific observation.

Group Projects

Sometimes students will work together in small groups to complete a project. Group projects are vital to the development of the adolescent. Collaboration in science class is vital to a thriving scientific community and allows students to play different roles within a small group. Each member must be accountable not only to themselves but to the other group members as well. Communication skills are developed, organizational skills are tested and students get the sense of their work being valued. Differentiation of labor is also a key aspect of group work, as individuals are often able to pursue their personal interests and share them with the other members.

Testing

Students will periodically be presented tests and quizzes on recently covered materials. These are both offered as practice for test taking skills and as a gauge for students to monitor their progress. Eighth grade students take the science component of the state standardized tests.

Expectations

Independent effort is important and long-term projects will require time in and outside of school.

Class participation

- Come to class on time prepared to participate
- Ask questions
- Share your ideas and your work
- Be willing to work with others

Outcomes

Understandings - Students will know:

- There is order to the natural world
- The scientific method allows us to learn about the way the world works through controlled experimentation.
- The natural world is made up of dynamic and interconnected systems. As one component of a system changes, it has effects on other components.
- An appreciation for the role of science in increasing our understanding of the natural world

Skills - Students will be able to:

- Ask questions - & know what questions can and can't be answered with science
- Engage with the world scientifically
- Know how to ask a question that can be answered scientifically, do so, and practice scientific inquiry
- Apply moral and ethical thinking to science – ask big questions and engage with debate
- Think critically
- Observe and collect data to be used for a purpose
- Analyze and draw conclusions
- Find patterns
- Problem solve and design solutions
- Conduct a controlled experiment
- Conduct a scientific investigation based on an original question
- Use a model to represent a system or process
- Read expository texts skillfully
- Evaluate a source for quality
- Engage in inquiry and exploration confidently

Humanities

Statement of Philosophy

"But, above all it is the education of the adolescents that is important, because adolescence is the time when the child enters on the state of manhood and becomes a member of society. If puberty is on the physical side a transition from an infantile to adult state, there is also on the psychological side, a transformation from the child who has to live in a family, to the man who has to live in society." (Montessori, FCTA, p. 60)

The adolescent fundamental developmental need is to answer the questions: "Who am I?" and "What is my place in the world?". As the adolescent becomes immersed in this personal journey, he is in a period of "increased sensitiveness to all facts and experiences which relate to his life as a social being." (Standing, p.116) He is an emerging social being, wondering how to interact with society at large – becoming a socially conscious individual.

Humanities is the study of human society. With the larger goal of aiding the adolescent in their exploration of personal identity, the humanities curriculum reflects the task of all humans in society – exploring how to be an engaged and participatory citizen. The study of humanities is a glimpse of how humans throughout time have been wrestling with this same profound issue, designed to show our place, time and culture as a part of the great human endeavor. While an individual may develop their human intelligence – language, math, moral development – that is not enough; an individual must also be initiated into human society – to understand the idea of society, its structure, its obligations and its achievements. Grounded in a pedagogy of place, the study of these courses consider the breadth of human history, through a particular lens – or theme – with a focus on understanding the present world we live in – where we are today and how we got here. The communities around us become our example and our primary source of study.

The topics for study are meant to dovetail with their experiences as they begin to participate in society – the middle school community, as leaders with the school, in occupations and micro economies, on the farm, and through their experiences in the broader world. The students root themselves as fellow citizens within a community – developing a sense of justice, of personal dignity, and a profound belief that they can change the world.

Nuts & Bolts

Humanities classes use a variety of methods to develop key skills and concepts. Key lessons are presented through readings, class presentations and outings. Coursework includes research, conducting interviews, observation, and reflection. Students practice sharing what they know through written and oral communication skills including taking notes, personal written responses, reports, class discussions, formal debates and giving formal presentations.

The curriculum cycles through each of the following courses over a three-year cycle:

The Land / The City

This course examines humanity's relationship to nature and the growth of cities. Topics of study include – history of agriculture and current environmental issues related to food, changing historical perspectives about nature, land use, great cities in history, and a focus on our own city.

Democracy / Economics

This course examines the rules societies create and the foundational philosophy of democracy. We explore different forms of governments, the history of democracy and human rights, our own democracy, and how citizens can create change.

Economics explores basic economic concepts like production and consumption of goods and services, supply and demand, and scarcity. We also investigate different economic models, the history of the economy in the United States, and personal financing. Finally, we consider the idea of economic justice, and the social, political, and environmental consequences of our economic actions.

Migration / The Sacred & the Secular

Migration examines how humans have moved and still move around the globe, why we do so, and the benefits and challenges to different cultures coming in contact with each other. We explore great migrations in history, the push and pull factors that influence migrations, and immigration in our country now. For a culminating project, students create a personal history of family migration.

The Sacred & the Secular looks at the spiritual needs of humans and the different ways it cultures meet those needs. We examine the role of religion in history. We explore different world religions and their presence in our community by visiting local places of worship.

Expectations

General Expectations

This course challenges students to define themselves and their society. It is not a passive study and requires active participation and independent effort. To be successful in this course, students need to:

- Commit to planning enough time to complete work to the best of one's ability. Long-term projects will require time in and outside school. Work periods are good times to tackle such projects. Research projects may require students to visit their local libraries outside of school time. Our school library is limited by design.
- Come to class on time, prepared to participate:
 - Ask questions
 - Share your ideas and your work
 - Behavior should remain professional and focused
 - Take notes in your notebook
 - Keep your humanities assignments all together in one place

Humanities is a mixed-age class and while 6th, 7th, and 8th graders engage in common study, the quality and depth of work will be different for students at each level.

General Expectations for 6th Grade

Transitioning to the pacing and structure of a more formal class environment can be a challenge for students new to middle school. Therefore, we see the first year as a time of transition. We ask 6th graders to be open to new challenges, to commit to completing work on time and to ask for help when necessary. Sixth grade students will often have shortened assignments and additional help during long term projects.

General Expectations for 7th Grade

By 7th grade, students should commit to more active participation in class conversations. Seventh grade students should begin to refine their written work – to develop ideas fully with examples and evidence, to think critically about new ideas and compare them to what they already know about the world – and to complete thorough research. In 7th grade, students should be able to complete research projects mostly independently and be able to articulate their own goals and projects for study.

General Expectations for 8th Grade

By 8th grade, students should feel comfortable with the methods of the course. Eighth graders are expected to be role models demonstrating the higher quality of work and studious approach to work younger students will aspire to. Therefore, we expect 8th grade students to participate actively in class conversations, to pose questions, share work and ideas and be leaders when working with younger students in group projects. In written work and oral presentations, eighth graders should demonstrate a refinement in communication.

Research

Several times throughout the year, students will engage in research projects in Humanities. These projects will require time outside of class and students may need help at home with trips to the library and assistance staying on top of longer term deadlines. Depending on the topic, research may include interviews and outings as well as library and online sources. For more about research in middle school, please see the section: *Doing Research in Middle School*.

Outcomes

Skills

- Engages with big ideas
- Can orient oneself in history
- Can think of an event in terms of causes and effects
- Can complete independent research using a variety of resources
- Can think critically and develop a well-supported argument
- Oral and written presentation skills
- Reading critically

Understandings

- Values other cultures and their histories
- Sees self as a global citizen
- Understands there is a connection between the past and present
- Has a sense of world geography and how geography and climate shape culture
- Knows the structure of our government and how democracy works
- Knows the fundamental needs of humans and how human societies meet those needs

Book Discussion

"We read to know we are not alone." (C.S. Lewis)

"Reading without reflecting is like eating without digesting." (attributed to E. Burke)

Statement of Philosophy

In the Middle School, Book Discussion focuses on reading and group discussion. The philosophy behind this component of the curriculum is based on a Montessori perspective about language.

Each level, from the primary to the middle school, roots its language program in a few fundamental assumptions, constructed from the observations and teachings of Maria Montessori. As Montessori noted, "To talk is the nature of man." Language is the quintessential human endeavor. Without it, we are not able to be fully human. It is a fundamental need of the human species to communicate with others.

Specifically, the adolescent uses language to construct himself in the adult world. He is developing personality, and language provides the adolescent a means to express himself – orally and in writing – as well as give him the tools to communicate and interact with the community.

For the adolescents, reading a variety of genres and discussing the work with their peers is a way to reflect on the big ideas of humanity. Selections are chosen for their ability to elicit thought and conversation about values, ethics, human nature, societal expectations, as well as the adolescent and human experiences. The adolescent uses the book discussion forum as a structured place to use language to identify what he thinks, what he feels, and how he wants to go about life.

The class is conducted in the seminar format – a small group sits in a circle and discusses a single piece of literature. The seminar focuses on the art of conversation – using formal discussion as a means to a deeper understanding of a body of work.

The seminar is a process that takes the students to a higher level of communication using the skills of logic and the art of persuasion.

The seminar format also provides opportunity for students to learn the skills of conversation: clarity of speech and thought, argument using text as support, courteous debate, thoughtful response, and active listening. Deep conversation also exposes the students to a variety of opinions, awakening an awareness that people experience the world differently and perspectives vary widely.

Nuts & Bolts

Students participate in book discussion four times a year, once per quarter. Classes last 5-6 weeks and each quarter focuses on a different genre. Each year we use one quarter to read classics and one to read contemporary books. The other quarters alternate between historical fiction, memoir, science fiction and fantasy. Sometimes, the genre is chosen in conjunction with the humanities curriculum.

Book groups are typically divided by grade level, 6th graders are with other 6th graders, while 7th/8th graders are grouped together. This division recognizes the distinct age-level variation in reading abilities and development, and acknowledges that many books contain material not appropriate for the youngest students.

Each quarter, five or six books are presented to the group: 6th graders are able to choose from two books, and the older students choose from three or four. Due to space limitations, students may or may not receive their first choice.

Reading skills vary in adolescents. Due to the intensity and regularity of the assignments in this class, parent communication can be key in recognizing reading difficulties. Please contact us immediately if your student is struggling with reading. Accommodations can then be discussed.

Expectations

Book discussion works best when everyone comes prepared to class, having read the material and completed the written work. Additionally, class participation is key.

Each week of class, students receive a typed assignment to complete for the following week. The assignment often includes a selection of reading, vocabulary work, comprehension questions, literary terms, and essay writing. In preparation for the class discussion, we ask that the students also prepare 2-4 questions reflecting the material. Questions are to be factual, interpretive, or evaluative – each type designed to prompt interpretation, critical thinking, and inquiry using the text.

Written assignments may be handwritten or typed. All sections should be completed to the best of ability. As the student develops as a reader and as a critical thinker (moving away from a concrete to abstract brain), we look for his answers to increase in depth and breadth. An 8th grader should be able to write more complete essays than a 6th grader. Because the same general format is used for this class throughout middle school, we consider skill development as a process along this continuum – we look for the student to improve over time.

In class, the students share their questions with the group and take turns answering each other. Students are expected to maintain attentive body language, and focus on the conversation. They are expected to listen courteously, avoid interruption, disagree professionally, and use the text to support their ideas.

If a student did not complete the work, then she typically will be asked to sit outside the group - to complete the assignment and not participate. Additionally, the teacher may also require the student finish uncompleted work during academic studio.

Outcomes

- Conversation skills (communication, listening, bodily control)
- Reading comprehension
- Reading fluency
- Exposure to a range of genres, settings, ideas, and style
- Clarity of thought

- Critical thinking
- Text supported debate
- Empathy
- Respect for diverse ideas
- Build vocabulary
- Construct a thoughtful essay
- Explore what they think and believe in a safe and respectful place
- Gain a respect and love of language!
- Cultivate relationships within a small atmosphere = building community
- Lifelong reading habits

Spanish

Statement of Philosophy

"Learning to speak another's language means taking one's place in the human community. It means reaching out to others across cultural and linguistic boundaries. Language is far more than a system to be explained. It is our most important link to the world around us. Language is culture in motion. It is people interacting with people." (Sandra Savignon, Professor Emerita of Applied Linguistics, Penn State University). Savignon's words support the profound importance of teaching a second language to children and convey the way that language should be taught.

In order to explain my thinking behind how I teach students in the Middle School Spanish program, I would like to use the analogy of a 3 period lesson. The Three Period Lesson in a primary Montessori classroom is used to provide the child with the language they need to use the materials in the classroom. It is divided into three steps: 1) The Naming Period (the child is presented with 3 objects, encouraged to handle them, and told their names multiple times); The Recognition and Association Period (the child is asked to do something with the objects, which will place the vocabulary into his long-term memory) and 3) The Recall Period (the child is challenged to name the objects himself).

So, using my analogy, we can view the Spanish Primary program as the first step of the 3 period lesson: The Naming Period. It is common knowledge that there is a critical period in brain development when optimal language learning takes place. The first critical period happens in early childhood. Children can perceive and reproduce all the characteristic modulations of accent and pronunciation in the same way that they pronounce their mother tongue. Learning is concrete, where children learn the names of objects (or people) that they can see or touch. Learning a language is an instinctive process: "The reason language is instinctive is because it is, to a large extent, hard-wired in the brain" (Eliot, 1999)

The Elementary Spanish program would represent the second step of the 3 period lesson: The Recognition and Association Period. Children expand their knowledge of basic vocabulary and the new vocabulary they learn is always related to grammatical functions. For example, they learn the names of family members so that they can describe their families; they learn the alphabet in Spanish so that they can use it to spell their own names and their friends' names; they learn the days of the week so that they are able to say the date, etc.

Finally, the Middle School Spanish Program can be seen as the last step in the 3 period lesson: The Recall Period. Students review Spanish vocabulary they've learned over the years, learn new words, and put their vocabulary into the context of ideas, phrases and sentences. It's the beginning of their path towards fluency. Projects are designed to further their understanding of Hispanic language and culture. Students are paired up with penpals from Spain, whom they get to know through multiple exchanges. As Savignon says, language is "...people interacting with people".

Nuts and Bolts

Middle School Spanish consists of three different courses: sixth grade, seventh grade and eighth grade. Each of these courses is designed to meet the needs of the students at each level and provide them with a curriculum that is both engaging and challenging. Each class meets twice weekly for 1 hr 10 min. The classes, activities and projects are structured so that students will practice each of the four main language skills: speaking, listening, reading and writing. The first class of a unit contains a vocabulary presentation linked to a corresponding grammatical unit.

For example: 6th grade students get introduced to vocabulary related to furniture so that later on they can learn how to describe what there is in a room and where it is located, using prepositions of place. In subsequent sessions, vocabulary is practiced through games, hand-outs, and classroom activities. Once a unit is completed, students take either an oral or a written test, in which they use the vocabulary and structures learned.

One full session a week is designated as a work period. During this time, the students have a chance to work with other students on Spanish projects, handouts or worksheets. It is also the time I use to do one-on-one presentations with students who need help or would like to get a follow-up presentation on a concept introduced in class. Those students who need Spanish support during the work periods outside of class may seek help from me as well as some other staff members who have knowledge of Spanish. Students participate in 4 projects each year (outlined in the syllabus students receive at the beginning of the year).

Each of these projects is designed for the students to put into context, in a creative way, what they have learned so far in class. Each of the projects introduces the students to different aspects of Spanish, Mexican and Hispanic American cultures. For example: 7th grade students create a tourist brochure about a Spanish-speaking country of their choice. They not only learn about each country's geography, weather patterns, and politics or economy, but also about their food, their music, and their celebrations. As the culmination of this project, they share what they have learned with the rest of the class.

Deadlines for classwork and projects are always specified in the handouts given to the students in class, and there will always be an extra copy of assignments with their due dates in the corresponding Spanish folder in the Open Studio. In addition, each student writes the deadlines in their planner.

Expectations

Becoming fluent in a language that you are not surrounded by is not an easy task. Therefore, the expectations for Spanish class are designed to help students maximize their learning in class. During the lessons where vocabulary is introduced, students are expected to take notes. If they miss a class or are not able to take notes, students are responsible for getting a copy of the notes from their grade's Spanish folder located in the Open Studio. Keeping a good record of the vocabulary introduced in class helps the students complete classroom assignments, practice for the test or quiz at the end of the unit, and fully integrate the vocabulary into their 4 projects for the year.

Students are also expected to actively participate in Spanish class. I try to use as much Spanish as possible during class, and I expect students to use as much Spanish as they can when interacting with one another and with me. Students are expected to make at least one oral presentation each quarter (3 minutes for 6th graders, 5 minutes for 7th graders and 7 minutes for 8th graders). These presentations are related to the vocabulary and grammatical concepts introduced in each of the grades. In order to internalize the vocabulary, students are expected to practice the vocabulary at home and make sure that they complete the handouts they receive in class. Most of the time, the students will have time in class to finish these assignments, but sometimes they will need to complete them at home and return them promptly.

Tests

At the end of each grammatical unit there will be an oral or written test. In the case of the written test, students are expected to get at least 70% to pass the test. If a student doesn't get a passing grade, he will be allowed to take the test as many times as needed in order to master it. Extra practicing sessions will be scheduled for the students that are having challenges mastering the presentations.

Projects

As for the four major projects each year, some of them are to be done individually (for example, the Family Album project for 7th graders) while other projects can be done in a group (for example the clothing catalogue project for 8th graders). When they are introduced to each of the projects, students are presented with a rubric that clearly specifies what it is expected of them. In each project the 4 main skills (speaking, reading, writing and listening) are evaluated through the following lenses: presentation, creativity and use of the language.

Evaluation

Four times a year I write a paragraph about each of the students in which I summarize how they are doing in Spanish class. In writing this paragraph I take into account not only the results of their tests but also their daily participation in class, their work in classroom activities, and the effort they put into their projects.

I would like to point out that the students' learning, as well as their evaluations, are cumulative; 7th graders build their knowledge on what they learned in the 6th grade, and 8th graders on what they learned in the 7th and 6th grade, so their evaluation consists of what they have been introduced at that grade level and also what they have learned before.

Outcomes

Learning a language is as much a way of self-expression as it is a springboard for students to connect in real and meaningful ways with the larger community: "Self-expression is an essential step in the development of one's humanity toward human understanding and solidarity. Art, music, and language as self-expression help us to understand one another better" (Laurie Ewert-Krocker, Montessori's Plan of Work and Study: An Explication)

"Communication through language" is one of Montessori's "formative forces" that will continue to develop during adolescence, the third plane of development. So, one of the main goals in the Middle School Spanish program is that the students will engage in conversations, be able to provide and obtain basic information, and exchange opinions.

They will be able to use Spanish both within and beyond the school setting. Spanish is a language with a complex and rich grammar, and by the end of their Middle School years, students should be able to understand basic Spanish grammatical rules such as word order, conjugation, and agreement between nouns and adjectives in gender and number. Students will be able to prepare audio or video recorded presentations to share in class and write letters to Spanish speaking pen pals. Students will demonstrate understanding of the nature of language through comparisons of Spanish and English and will understand the concept of culture through comparisons of the cultures studied and their own.

Physical Education

Statement of Philosophy

That students develop their ability to overcome challenging situations, and expand their appreciation for and capabilities in new activities, are qualities important to the success of the individual in all areas of life. PE is an ideal arena for generating growth in these areas, as well as having the framework to marry such important experiences with the joy of sport and play. The PE program promotes community development through an emphasis on participation and adaptability. A variety of activities is explored to expand the student's sense of interest and broaden their vocabulary of games and skills, leading to a greater ability to interact with others through sport and play.

Nuts & Bolts

PE is generally structured around 3-week modules, where students focus on one sport or activity for a three-week period. Specific to the theme of each module, time is first spent focusing on rules and developing skills through practice and then playing. Each class also begins with a warm up that is usually centered around improving cardiovascular fitness and/or development of muscle strength and coordination. In the winter, the PE program is dedicated to ski and snowboard excursions on Fridays that include a lesson in the morning and chaperoned ski/board outings in the afternoon.

Expectations

The general expectations for PE are:

- to come prepared to class wearing clothing that is appropriate for physical activity.
- to participate in activities with one's best personal effort.
- to have a positive attitude and demonstrate good sportsmanship.
- to exhibit proper use and care of shared equipment and facilities.

Goals and Outcomes

The PE program is intended to develop students socially as well as physically. Social goals for PE are that students learn the values of teamwork and personal effort, and to improve their abilities to communicate and interact with others through activities. Goals for the physical level are that students learn more about their bodies and how to care for them, particularly as they undergo an intense period of physical development. PE at the adolescent level incorporates seeks to incorporate both of these.

Adolescence can also be a time when individuals begin to focus themselves intensely on particular interests while forgoing or letting go of others. PE seeks to stretch the individual instead of narrow them, pushing them to remain open to new ideas and experiences. Connected to this is increasing the ability to challenge oneself, to work through fears or uncomfortable situations, and lastly, to enjoy oneself along the way.

The Farm

"Places are laboratories of diversity and complexity, mixing social functions and natural processes. A place has a human history and a geologic past: it is a part of an ecosystem with a variety of Microsystems; it is a landscape with a particular flora and fauna. Its inhabitants are part of a social, economic, and political order: they import or export energy materials, water, and wastes; they are linked by innumerable bonds to other places. A place can be understood only on its terms as a complex mosaic of phenomena and problems. The classroom and indoor laboratory are ideal environments in which to narrow reality in order to focus on bits and pieces. The study of place, by contrast, enables us to widen the focus to examine the interrelationships between disciplines and to lengthen our perception of time."

(David Orr)

"Work on the land is an introduction both to nature and to civilization and gives a limitless field for scientific and historic studies." (Maria Montessori)

Statement of Philosophy

When Maria Montessori envisioned a program for the young adolescent, she envisioned it on a farm and described these adolescents as "erdkinder," or land children. She saw a farm as a place to observe nature and an ideal environment that promoted physical and mental health--fresh air, space to run around and the peace and quiet of nature--during a time of physical and mental vulnerability. Most critically, she valued the kind of work that comes from farm life as a unique way to experience the social foundations of human civilization.

Working, and at times living, on Pacific Crest Farm provides students with experiences not available on our urban campus. The farm is a natural laboratory. It is an ideal place to observe the interaction of human and natural systems on an observable scale. The farm provides limitless opportunities for scientific and historic study. Students learn about the origin of civilization through its origin in agriculture. Participating in the growing and selling farm produce exposes students to the fundamental systems upon which economic life is based - production and exchange; cultivating the land, and animal husbandry - and promotes an experience of self-sufficiency. In this way, experiences on the farm serve as both an introduction to nature as well as to the foundations and interdependencies of social life.

During overnights, daily life can be made to suit the adolescent, and does not have to conform to the multi-dimensional needs and schedule of the family. Adolescents can be independent on the farm in a way they can't in the city. Sleeping, cooking and working together gives adolescents social experience organized on a larger scale and with a greater sense of freedom and mutual responsibility than within family life.

Nuts & Bolts

Middle school students visit the farm campus regularly throughout the year in small groups. Farm trips happen twice a week so that an individual student will visit the farm on about a 2 ½ week or 3 week rotation. On their farm trip days, students arrive early to school (typically 7:30 am) and return at normal pick-up time (3:00 pm).

Work on the farm includes a range of activities including scientific study, building projects, crop production, food preparation, animal husbandry and general farm infrastructure maintenance. During each visit, students typically work on 2-3 projects. Activities vary depending on the season, the farm's needs, food availability, and their studies. Regular activities include moving the sheep from pasture to pasture, harvesting of crops, seeding and transplanting, egg collection and tree pruning. In the last few years, projects have included:

- Creation of a bound Flora and Fauna of the Farm, with species descriptions, locations, and life cycles of over 250 species
- Design, establishment, and maintenance of a beneficial pollinator garden/insectary
- Establishment and monitoring of observation plots
- Investigation of soil properties
- Experimentation with edible mushroom production by inoculating downed trees with mycelium plugs
- Building benches, fences and wood sheds
- Building platforms for wall tents
- A walk-in four-walled art "room" with transparent floor to ceiling panels situated out in a pasture
- Habitat restoration projects - replacing invasive species with native plants

For several years, the students have been selling organic farm-raised produce at school. They help plant and harvest the crops; submit orders, stock and price the stand, and market the vegetables with the aim of raising income with proceeds going to their student occupations and activities fund.

Expectations

- Attend farm trips with assigned farm group as scheduled. *If a farm trip must be missed, please inform the mentor teacher and arrange for a make-up visit.*
- Arrive to school on time with clothing and footwear appropriate for outdoor work that may include manual labor.
- Participate in group activities and farm work with effort and courtesy.
- Try new things--over the course of the year, students should elect to participate in a variety of kinds of farm experiences.
- Exhibit proper use and care of equipment, tools and farm facilities.

Outcomes

- Exposure to skills and experiences of self-sufficiency: food production, basic building skills, care of animals
- An understanding, both academic and experiential, of agriculture as a foundation of human society
- Ability to problem solve in a group

- Experience with the complete cycle of food production
- Experience and understanding of natural systems, and the interaction of human and natural systems
- Experience with the full cycle of production and exchange including the successful running of a small business
- A valued connection to a particular natural space
- Learning what it means to make a contribution to a group project
- Understanding interdependence and the need for cooperation between adults and peers on a working farm
- Adapting to a variety of work demands to meet group needs including financial success
- Learning how to live in harmony with others

Occupations

Statement of Philosophy

"Men with hands and no head, and men with head and no hands are equally out of place in the modern community" (FTCA, 62)

"Education should... include the two forms of work, manual and intellectual, for the same person, and thus make it understood by practical experience that these two kinds compete each other and are equally essential to a civilized existence." (FCTA, p.65)

Maria Montessori described adolescents as the newborns of human society and she believed that by presenting the adolescent with the ideal of social order, students would grow up capable of building a greater civilization better able to resolve conflict and work together to solve the great problems of the day. Our program of Occupations is based upon the idea that in middle school, the adolescent is prepared to enter society as a contributing member. They must develop the practical skills of building and caring for a community. This social development is fostered through all of the four components of the middle school program - academics, creative expression, occupations and the social or community life. However, occupations provide unique opportunities to learn how a social organization works and to do meaningful work that contributes to the community. In every occupation, there is division of labor, cooperation, decision-making, problem-solving, and negotiation. Students share ideas and test them. Student managers practice leadership skills. By working together, students practice resolving conflict. Some of the occupations fall into the category of micro-economies. These give students the opportunity to learn about production and exchange. The money from these occupations go into the student fund, an account that is managed by the student-run finance committee. The whole middle school has opportunities to make decisions about how this money is spent.

Nuts & Bolts

The structure of each occupation varies greatly based upon its aim. Some occupations continue all through the school year such as Primary Classroom Helpers, and some, like the farm stand, function on a seasonal schedule. Some require a year-long commitment of participation and others, such as volunteering at the food bank, provide opportunities to sign up for just one shift of work. Some, like the finance committee, meet regularly through the year, and others, such as the yearbook, have a more concentrated burst of work around a deadline. However, all occupations have a teacher advisor and a student manager.

The occupations offered may vary based on student interest and as resources and needs change year to year. However, the list below should serve to give a good sense of the typical range.

Middle School Service

Yearbook
Literary Journal
Seasonal Lunches
Mentor Cooking Projects

Micro Economies

Farm Stand
Card Business
Bike Repair Shop
Finance committee
Wreath Making fundraiser

Whole School Service

Primary Classroom Helper
Front Desk
Art Studio Helper
Elementary PE Assistants
Prospective Family Tour Guides

Broader Community Service

Foodbank
Heron Habitat Helpers
History House
Mural Projects
Foss Home for the Elderly

Expectations

- Sixth grade students are expected to volunteer and participate in something during their first year.
- Seventh grade students are expected to make a greater commitment and take on more responsibility for the success of their occupation.
- Eighth grade students are expected to manage an occupation during one of their two semesters of 8th grade.

Outcomes

- Learning what it means to make a contribution
- Understanding interdependence and the need to cooperate with adults and peers in relation to the rest of the world
- Assuming work roles and their social implications, projecting the benefits of an active role in society
- Adapting to a variety of work demands for the sake of others - social consciousness
- Balancing individual initiatives in relation to community goals
- Learning the meaning of rules and their importance to harmonious living

Other Guiding Excerpts from Maria Montessori's Writing

"An education capable of saving humanity is no small undertaking; it involves the spiritual development of man, the enhancement of his value as an individual, and the preparation of young people to understand the times in which they live." (Education and Peace)

"Education should not limit itself to seeking new methods for a mostly arid transmission of knowledge: its aim must be to give the necessary aid to human development...."(FCTA, p. 84)

"Such being the conditions of the society, we ought to remember that there is one thing that education can take as a sure guide, and that is the *personality of children* who are to be educated. It is necessary that the human personality should be prepared for the unforeseen, not only for the conditions that can be anticipated by prudence and foresight. Nor should it be strictly conditioned by one rigid specialization, but should develop at the same time the power of adapting itself quickly and easily...*Adaptability*—this is the most essential quality; for the progress of the world is continually opening new careers, and at the same time closing or revolutionizing the traditional types of employment." (FCTA, p. 61.)

"The truth is that the development of the soul, mind and body are interdependent; if we concentrate on the development of one faculty the personality becomes crippled and stunted and it is impossible to achieve even the results at which we aimed." (*Communications 2011/1-2*, p. 86.)

"These children seem to be precocious in their intellectual development and they demonstrate that while working harder than other children they do so without tiring themselves. These very children reveal to us the most vital need of their development, saying: 'Help me to do it alone!' Independence, in the case of the adolescents, has to be acquired on a different plane, for theirs is the economic independence in the field of society. Here, too, the principles of 'Help me to do it alone!' ought to be applied." (FCTA, p.67)

"This is the mission of education. Let us therefore unite our efforts to construct an environment that will allow the child and the adolescent to live an independent, individual life in order to fulfill the goal that all of us are pursuing – the development of personality, the formation of a supernatural order, and the creation of a better society. The human soul must shape itself within a supernatural milieu." (*Education and Peace* p. 106)

"*The role of education is to interest the child profoundly in an external activity to which he will give all his potential. We are concerned here with bringing him liberty and independence while interesting him in an activity through which he will subsequently discover reality. And for him this is the means by which he may free himself from the adult.*" (FCTA, p.11)