

## Full Transcript of Imagine a School

### **Imagine a School: Montessori for Elementary Children**



The videotape opens with a fade up on a shot of children working together cooperatively on a project. Dissolve to a public school Montessori child highly focused on a math material. This image dissolves to another child engaged in a math material. This montage continues as the narrator begins with a sense of wonder:

Imagine a school where children can progress at their own pace, regardless of their ability... and providing each child the opportunity to make decisions about what they want to know, and when to move on to another subject.

Imagine a school that teaches every subject with hands on materials, allowing children to absorb information using all their senses.

Imagine a school that is a true community of learners, where children actually teach and learn from each other, as well as the adult, and assume their share of responsibility for maintaining the classroom environment

In the next few minutes, we will visit three elementary schools that offer children all of these opportunities. Two of the schools are urban public schools and one is a suburban private school... but they are all Montessori schools. Come into these classrooms and observe how these schools engage the minds of children, regardless of background or ability. As we watch these children work, we will introduce you to some of the basic elements of elementary Montessori schools including:

- Hands On Materials
- Self Paced/Self Initiated Learning
- A Multiage Community of Learners

Fade to Black

#### **Hands on Materials**

All Montessori classrooms are based on a hands on approach to learning. The materials that teach math..., science..., geography..., language arts..., geometry... and other subjects are carefully designed to appeal to the child's imagination. Rich colors and pleasing textures, thoughtfully assembled, invite each child to take the materials from the shelf.

Parent Comment: If you can see something, if you can touch it, you can feel it, you can hear it, see it, you get your senses involved with it, of course it is going to heighten your learning.

Parent Comment: When you can feel these things and know how the exchanges are made and that this is ten times as much as this and the size is there rather than seeing numbers that really don't mean a lot to you at that age, I think that helps a lot.

As the child becomes comfortable with the basics, the materials become increasingly abstract and complex, helping the learner to understand first the patterns of addition, subtraction, multiplication and division and building from this foundation to the complexities of squaring and square root, cubing and cube root.

We see a girl and a boy adding cubes and squares.

These 11 year olds are tackling a math problem that calls for the addition of the components of a cube. At this level the materials provide a method for the students to check their own work as well as a way to visualize the problem in three dimensions.

Parent Comment: It just makes so much sense to slowly move kids towards abstraction as opposed to when we were in grade school you had to immediately be able to abstract and some kids got it and some didn't and I think more kids have the opportunity to get to that level of abstraction, everybody at a different pace of course that's the whole beauty of Montessori. They get to move along and come to that and they don't have to struggle with abstracting from the very beginning.

We see two girls working with a geometric shapes material.

Montessori introduces children to geometry beginning in the early childhood years. The repetition encourages children to assume responsibility for their own learning, creating a greater self confidence as they recognize and correct their own errors. These two girls are learning the two dimensional polygons from triangle to decagon.

The girls mistake a pentagon for a nonagon but solve the problem themselves by consulting a chart.

This material helps them to discover the shapes on their own by matching the names to the shapes. When they get stuck, they are able to solve the problem independently without adult assistance through the use of a chart.

The parts of speech are represented by symbols in elementary Montessori. Each symbol was chosen to provide cues to the function of each word. A black triangle represents a noun.

A graphic representation of the noun/pyramid relationship will be shown.

The notion of the verb is introduced with a red ball - full of action and motion. This approach provides children with a way to visualize the work of individual words in the structure of a sentence. Now the child can analyze the work of any author, including herself. This understanding ensures the foundation for complex writing work including factual research and creative fiction.

All genre of literature are explored, read written and analyzed for the basics of story structure.

We see a group of girls collaborating on structuring their own sentences using this material.

### **Self Paced, Self Initiated Learning**

Children have a natural desire to learn. Teachers trained in the Montessori method build on that desire by structuring projects that follow each child's interests. Each student designs his own lesson plan with the teacher. After developing this workplan, students often pursue a project well beyond what they could in most other classrooms.



Parent Comment: It's very interesting because there is just a buzz around the classroom that seems, as a parent, you first wonder how they could get things done in the day, but they just look at their

workplan and carry on throughout the day and do a wonderful job of completing their tasks.

Deidre Nolan (Teacher):The other thing I am struck with, children in Montessori classrooms become very organized, and it's not by chance it is very much by design. I see this helping them in the long run when they become adults. So the children are organizing themselves or organizing what they want to accomplish within a given day, how long they are going to work at something.

In this 9-12 class, a boy brought in bullfrogs he had found in a pond over the weekend. Several members of the class created a home for the frogs in an aquarium, using pond water. They then embarked on a study of the natural environment of bullfrogs. The pond water was examined under the microscope to observe the one celled animals the students had studied earlier. The Montessori science curriculum encourages hypothesizing, experimenting and observation in building a knowledge base. All of the students became fascinated with the skill the frogs had in catching insects with their tongues and took turns catching grasshoppers and spiders to feed them prompting further discussion on the digestive and neural systems of the frog.

We see the children gathered around the aquarium waiting for the frog to zap a grasshopper.

Children thrive in this environment because they are free to work at their own pace. There is no rush to keep up with material that is confusing, no fear of falling behind, no boredom waiting for others to catch up. Montessori students feel relaxed about learning, and enjoy each new challenge. Uninterrupted periods of work time is one of the greatest gifts the method gives and the results are focused, sustained concentration.

Parent Comment: You can go as far as you want, as fast as you want. I really like the idea of an independent study because the kids can explore and see how starting from one thing it just keeps flowering into other things, other avenues and they get a better understanding of the total.

This project based education increases the scope of what a child learns. The boundaries between subjects disappear as children read about a topic... write about it... illustrate it... develop a timeline history of it... and report it back orally to their classmates. The integration of the subject matter helps children make sense out of a complex world - they see the natural connection that are lost when studying subjects in isolation... and by sharing the information with classmates, a broad base of information is ensured.

We see Amy presenting the parts of a leaf in a 6-9 year old class.

In this 6-9 class the teacher presents a new material on the parts of a leaf. Following the presentation, a song is used to reinforce the retention of the basic elements of a leaf. Later children do this work on their own, collect various types of leaves and create an art project based on leaf rubbings. As they use art to appreciate the beauty of a leaf, these girls can see how the hard structure supports the softer parts of the leaf. Later the chemical process of photosynthesis will build on this basic knowledge.

In this 9-12 class, the children are studying Native American culture through learning the art of weaving. Other students are creating a drawing with colored pens that represents a Native American folktale. Still others are making puppets that will be used to reenact the folktale with the drawing.

Parent Comment: And I watched the kids, and they were all so happy doing what they were doing but they were all busy learning.. You could tell that they were really interested in what they were doing.

## A Multiage Community of Learners

Elementary Montessori classes are structured around three year age spans: 6-9 year old classrooms and 9-12 year old classrooms. Combining children within a three year age span creates a community of learners with many levels of knowledge and ability. The children learn from each other and reinforce their own knowledge by sharing it with younger children.

Parent Comment: And if you have to teach something, you really learn it, you really know it and it just makes so much sense to reinforce that.

Working in small groups, children learn to cooperate and to nurture each other rather than to compete. The environment of the classroom supports an attitude that learning is important, that learning is fun, that problems can be solved by working together.



Paulyne Holten-Sinder (Teacher): It's not a peer pressure as much as it's a peer catalyst to learn. It's not that anybody older than you is saying hey you ought to know this, because they are too busy doing their own thing to know what you are doing. But there is this tremendous excitement they see in the others doing and they want to be like that, I mean they see that it is exciting. And they want to be part of that.

Because they see older children interacting successfully with the advanced curriculum, children feel more confident that they will be able to succeed as well. Montessori students develop a love of learning which lasts a lifetime.

Cooperative learning requires that children learn the skills necessary to share responsibilities. The multiage classroom facilitates the development of these skills, because only one third of the students are new to the classroom each year. The older students are familiar with the routine of the classroom and know what is expected of them. They welcome the opportunity to be mentors for their younger classmates and sometimes to work with even younger children in other classrooms.

We see 9-12 children helping 3-6 children plant in the garden.

Paulyne Holten-Sinder (Teacher): So from a very young age the notion that I take and I give. I take and I give. So these children have the possibility to learn and then to teach it to somebody else. What a great lesson for life, you can learn from everybody.

Parent Comment: I sense my children developing a kindness and a gentleness and an understanding that extends towards their classmates, toward other children, towards adults, toward people with impairments and disabilities and that is something that is precious, that I don't know where else I could see that level of understanding develop among children so early.

Parent Comment: I think the one thing that impresses me is the respect that the children develop for one another. And in seeing other classroom settings, the respect just isn't there for the children and I think that's one thing that impresses me about the Montessori setting.

Parent Comment: I think it is the one educational method that has really looked at the child, really attempted to understand the child and it just makes sense.

Parent Comment: I'm quite in awe of the level of just intelligence that the program has brought to her and the questions that she asks and the appetite that she has for new things. I guess when I

reflect back and think of when I was in sixth grade, did I ask those kinds of questions? I would have to say no.