



Montessori Matters



Music at RMS includes lessons, music classes (left) and performances (right) given by students and faculty. The variety of instruments and genres is international.

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Current Events

Please support our chances to win a Smart Board with HyVee shopping.

Many thanks for your Annual Fund contributions. We're underway to raise \$25,000!

The Ending Hunger Event - Change of Date to 11/16

On the Calendar

November

Annual Fund Continues

3-10 Scholastic Book Fair

- 4 **School Closed: Conferences**
- 7 Montessori Monday:
Learning to Read
- 16 Empty Bowls - 5:30 PM
- 16 Board Meeting - 6:00 PM
- 23-25 **School Closed: Thanksgiving**

Assessing Learning

By Paul Epstein, Ph.D., Head of School

With fall conferences now underway, here is some general information about assessment. It should not come as a surprise to know that the purposes and procedures of assessment are changing. This is due in part to having become a candidate school for the International Baccalaureate Middle Years Program (MYP). The MYP offers students in grades 6 - 8 a comprehensive, global perspective, and this perspective is essential given the incredible social, political, and economic developments now underway.

This stands in stark contrast to how our learning was assessed. It was based on the expectations for our adulthood as understood at that time. We were essentially teacher directed. We took out the same book at the same time. We turned to the same page, and we read and answered the same questions. We took the same notes, turned in homework for the same assignments, and then we took the same quizzes and tests. Knowledge was assessed based on the ability to reorganize, reinterpret, restate main ideas, and recall. In this system, students with an ability to memorize succeeded

Implemented during an economic era of industry, society expected schools to prepare children to become adults readied for a factory-mentality including top-down decision making and top-down supervision. The language of schools and industry were somewhat consistent. We were *assigned* tasks; we were *promoted*. We are now in the midst of an incredible world-wide social and political cross-over. Service-based, innovative-based, and thought-based

social systems and economies are emerging globally. To merely ready children for a factory-based society is a disservice. They will need a very different skill set and a very fundamentally different kind of education.

Children must develop abilities such as reasoning, innovation, creativity, problem-solving, design, communication, teaming, and more. Recall alone is insufficient; students must learn to analyze, evaluate, synthesize, and communicate new possibilities.

How does the Rochester Montessori School instruct children in these abilities? How do we assess this kind of learning?

The Structure of Assessment. Assessment at RMS is based on both Montessori and IB principles, developmental and academic curricula, learning objectives, and assessment criteria.

Developmentally Appropriate Curriculum. Age is an important component of assessment; learning involves more than subject matter. Toddlers, for example, are intent to develop coordination, expressive language, and social skills. In Children’s House, children are intent on becoming independent, on becoming self-sufficient. Middle school students seek to initiate, plan, and execute effective ideas.

Freedom within Limits. To enable development, Montessori classroom environments are designed to empower. We believe each child is a wondrous constellation of unique capabilities, learning styles, temperament, and personality. These develop most fully when a child is empowered and taught to make responsible choices. For this reason, each classroom is a developmentally

appropriate prepared environment. The learning materials instruct and satisfy each child’s learning needs.

However, each environment is also a study in limits including behavioral ground rules (walk, not run), work rules (work is used in this way and then is returned to the shelf, readied for the next person), and also the numbers of materials. Within these and other limits, children experience the power of choice - consequences. Learning to be mindful of, and learning to anticipate the results of choice is a lifelong venture.

Limits in the prepared environment also offer safety. As Montessori children experience choosing daily, they learn that it is safe to take risks, try new works, and persevere with investigations. This is a critical first step towards accomplishing the educational goals for the 21st century.

Curriculum: Montessori Materials. The Montessori materials teach specific concepts and skills. The classroom guides present the materials; the presentation demonstrates the use of the objects and the key concept or skill. Classroom guides observe the children’s use of the material for assessment purposes. Because the materials are sequenced, the guides know if a child’s use is appropriate for her learning, if the child has missed a step, or if the child is ready to move on.

Control of Error. The materials are designed for inquiry and discovery. From repeated uses, children also develop two incredibly valuable skills for the emerging global society: the ability to sustain concentration, and the development of self-discipline. When children can attend in this way, they develop self-reliance and perseverance. The materials are made with a built in control of error. This design teaches

Below: Science objectives for students in the Middle Years Program (grades 6 – 8). The objectives define what the student will be able to accomplish as a result of studying the subject. Each subject has a comparable list of objectives, and the objectives relate directly to assessment criteria.

Science - the student ...

- Explains the ways in which science is applied and used to address specific problems or issues
- Discusses and evaluates the effectiveness of science and its application in solving problems or issues
- Uses scientific language correctly
- Uses appropriate communication modes such as verbal (oral, written), visual (graphic, symbolic) and communication formats (laboratory reports, essays, presentations) to effectively communicate theories, ideas and findings in science
- Uses a recognized referencing system to acknowledge the work of others
- Uses scientific knowledge and understanding to construct scientific explanations
- Applies scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations
- Analyzes and evaluates information to make judgments supported by scientific understanding
- States a testable hypothesis and explains it using scientific reasoning
- Collects, organizes, interprets, and presents data using numerical and visual forms
- Evaluates the validity and reliability of the method
- Judges the validity of a hypothesis based on the outcome of the investigation
- Suggests improvements to the method or further inquiry, when relevant





A kindergarten study of leaf shapes develops science knowledge and reading vocabulary.

learners how to identify and correct their own mistakes. The control of error guides a child’s discovery and inquiry process.

For older children, learning to reflect on choices made as well as on the activities they have completed is an abstract version of how the Montessori materials are made. Tomorrow’s adults will work in circumstances and situations that we can not possibly imagine. Teaching children how to adapt through reflection to the unforeseen is an essential lifelong skill they will need.

Assessment Measures Assessment with older children (kindergarten, elementary and middle school) takes on additional forms and begins with specific curriculum objectives. You may wish to review our curriculum outlines at <http://rmschool.org/publications/index>.

We have now adopted the learning objectives for our MYP courses for grades 6-8. The eight courses are English, Spanish, Mathematics, Science, Humanities, Music, Art, Physical Education, and Technology.

An example of the science course objectives from the MYP program is shown in blue on page 2. A listing of the course objectives for Spanish is printed on this page. Each MYP course has a similar set of objectives. These objectives are further used as assessment criteria.

As we proceed towards IB authorization, we are implementing all of the course objectives in the Middle School. We are also at this time implementing the course objectives for Art, Music, Spanish, Technology, and Physical Education objectives in grade 6.

A variety of assessments are used including quizzes, projects, written work, presentations, observations, compositions, creating of products, designs, essays, investigations, performances, and more. Many of these tasks are also suitable for younger students.

Assessing learning involves developmental capabilities, learning objectives, and a variety of assessment measures. Our systems are evolving as we adopt and blend the MYP program with our Montessori curriculum.

Below: Spanish objectives for students in the Middle Years Program (grades 6 –8). The objectives define what the student will be able to accomplish as a result of studying the subject. Each subject has a comparable list of objectives, and the objectives relate directly to assessment criteria.

Spanish Oral Skills

- Understands meaning of words, phrases, sentences
- Demonstrates accurate pronunciation
- Initiates a conversational exchange
- Responds appropriately in a conversational exchange
- Expresses oneself in extended exchanges
- Uses vocabulary appropriately in controlled exercises
- Comprehends factual information
- Expresses oneself with grammatical accuracy

Reading Skills

- Makes letter-sound links
- Is developing a sight vocabulary
- Understands short stories and other texts such as articles and novels
- Accurately interprets grammar to derive meaning

Writing Skills

- Spells words accurately
- Completes controlled exercises
- Writes at the sentence level
- Writes with a variety of forms such as letters, creative writing, and presentations
- Uses grammar accurately

Learning Skills

- Further knowledge of another discipline through the study of Spanish
- Demonstrates use of Spanish in the school and other settings
- Makes cultural and linguistic comparisons between her/his native language and the second language