Geometry in the Montessori Classroom

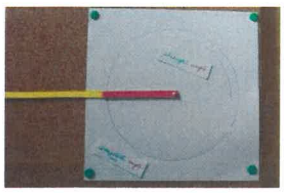
For many of us, the subject of geometry was not introduced until high school. We were introduced to Geometry as a theoretical science instead of a practical one. Perhaps that is why so many of us found Geometry to be a daunting subject.

In a Montessori classroom, however, the child is introduced to geometry concretely through the hands-on exploration of the pre-primary sensorial materials. Using the hand and senses to absorb impressions from the environment, the child builds up a wealth of knowledge regarding size and shape upon which abstract concepts become firmly rooted.

First exploring the geometric cabinet and geometric solids, the child experiences shape and its attributes. Naming the shapes becomes the first level of abstraction.

At the elementary level, these concrete materials continue to be utilized when introducing further geometric concepts; for example, symmetry, equivalence, congruence, perimeter, area, line, angle.

Geometry is explored very practically, as it was originally intended, in the study of measurements, area and volume. The children are introduced to special tools for measurement, including the metric stick, compass and protractor.



Utilizing the Montessori protractor, the child begins to make concrete connections between parts of a circle, angle and fractions. As the child progresses through the elementary curriculum, he is led to discover formulas for determining these measurements. In a Montessori classroom,

Geometry becomes a subject of discovery and an expression of concrete experiences rather than a list of algebraic equations and theorems to memorize.