

**Montessori Fundamentals 2019- LE/UE Mathematics and Cultural Syllabus Requirements**  
**FRIDAY, July 19, 2019: MATHEMATICS AND CULTURAL (8:30-11:30; 12:30-3:30)**

Mathematics

- Philosophy
  - Concrete to abstract
  - Components of Mathematics
    - The Mathematical Mind
    - Operations
    - Fractions
    - Geometry
    - Contextual Application
    - Beyond the Algorithm
      - Flexibility, number sense, and proportionality
- Foundational Examples (4 to 6 materials)
  - Introduction to material
  - Guidance and phrases
    - Observe, Interact, Guide
  - Individualization
  - Levels of Use

Cosmic Curriculum/Cultural

- Story of the Universe
  - Universe experiments
    - Link to Physics curriculum
  - Timeline of Life
  - Timeline of Man
    - Forward in time such as:
      - Timeline of Ancient Civilizations
      - North American timelines
  - Tree of Life
    - Link to Botany and Zoology studies
- Link to Geography
  - Cosmic Address
  - Fundamental Needs of Humans
  - Study of a Continent
    - Puzzle Maps
    - Pin Maps
    - Multi-cultural Studies