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Sommario/riassunto

Natural philosophy encompassed all natural phenomena of the physical world. It sought to discover the physical causes of all natural effects and was little concerned with mathematics. By contrast, the exact mathematical sciences were narrowly confined to various computations that did not involve physical causes, functioning totally independently of natural philosophy. Although this began slowly to change in the late Middle Ages, a much more thoroughgoing union of natural philosophy and mathematics occurred in the seventeenth century and thereby made the Scientific Revolution possible. The title of Isaac Newton's great work, The Mathematical Principles of Natural Philosophy, perfectly reflects the new relationship. Natural philosophy became the 'Great Mother of the Sciences', which by the nineteenth century had nourished the manifold chemical, physical, and biological sciences to maturity, thus enabling them to leave the 'Great Mother' and emerge as the multiplicity of independent sciences we know today.