

K–12 Astronomy Education in the Republic of Korea: Trends and Transformations within the National Curriculum

Tuesday, 2 September 2025 13:40 (20 minutes)

This presentation explores the historical changes and recent trends in astronomy education in the national curriculum of the Republic of Korea. We conducted a comprehensive analysis of science and astronomy content in the Korean national curriculum from 1945 to 2023. Our findings indicate that the curriculum has continually adapted to societal demands for practical knowledge and advancements in astronomical research. While core topics—such as celestial motion and the physical properties of stars—have remained relatively consistent, the most recent 2022 curriculum revision reflects significant pedagogical shifts. Notably, there is a reduction in traditional content like coordinate systems, alongside an increased emphasis on inquiry-based activities utilizing digital tools. However, the integration of a cosmic perspective and connections to Education for Sustainable Development (ESD) remain limited within astronomy education. In response to curriculum changes, we also present practical examples of teacher training programs designed to enhance the professional capacity of astronomy educators. These insights aim to contribute to the global discourse on effective approaches to curriculum reform and teacher development in science education.

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