

# **Astronomy Education in the curriculum in Nepal: The need for Capacity Building from an author's perspective**

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# Astronomy Curriculum in Nepal

- Although astronomy is a separate branch of science it has been included as a physics curriculum in Nepal.
- The curriculum of Nepal is being prepared, updated, and evaluated by the Curriculum Development Centre (CDC) under the Ministry of Education, Science and Technology in Nepal.
- Generally, the curriculum is updated every 10 years.
- According to the policy Nepal is in the phase of implementation of a new curriculum as it has been prepared in 2020.
- The new curriculum has been implemented for Grades 1, 6, and 11 in the year 2020, for Grades 2,3,6 and 12 in the year 2021, for Grades 4,7 and 9 in the year 2022, and for Grades 5,8 and 10 will be implemented in the year 2022.
- As per the new curriculum of Nepal prepared by CDC, astronomy is included under the curriculum of Science and Technology from Grades 4 to 10 and Physics in Grades 11 and 12.

# Need for Capacity Building

- Curriculum gives very less priority to astronomy education.
- One of the reasons for this could be the less interest of teachers, educators, and curriculum developers in astronomy education.
- In spite of this, astronomy education is being included in each level now as a major unit.
- But, even with the updated curriculum, the result of the understanding and knowledge in students seems to be not so satisfactory. This can be visioned as the lack of knowledge among the teachers and educators which fails to quench the thirst of the students in the respective subject matter.
- There is a need for capacity building among the teacher and educators to facilitate the understanding of the knowledge along with the newer updates in the introduction of chapters and units in astronomy in Nepali science books/curriculum.
- Also, detailed information about the subjects that have been incorporated into the Nepali textbooks is shared.



# The Inclusion of Astronomy in the Curriculum

## Basic level (For classes 4 and 5)

- **Earth and Space:** The topics are related to the Structure of the earth, Various spheres of the earth, Weather and climate, Weather forecasting, the sun, the moon, and the earth including revolution and rotation of the earth and moon, Phases of the moon, etc.

## Basic level (For classes 6 to 8)

- **Earth and Space:** Soil, Rocks and Minerals, Soil profile, Layers of the earth, Season change on the earth, The sun and the Solar system, Phases of the moon and Lunar Calendar, Eclipse and causes, Universe, Asteroids, Comets, Constellations, Galaxies, Meteors and Meteorites, Evolution of the living organisms on the earth.

## Secondary level (For classes 9 and 10)

- **Astronomical units, Nebula and black hole, the Life cycle of stars, National/ International agencies working in Astronomy, Importance of gravitational force, Origin of the Universe according to Big bang theory, Conclusion of Hubble's law, The future of the universe on the basis of gravitational force.**

# Thank you

