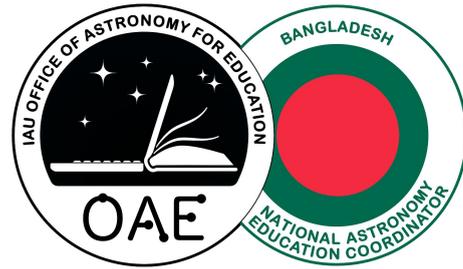


# Astronomy Education in Bangladesh



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This overview is part of the project "Astronomy Education Worldwide" of the International Astronomical Union's Office of Astronomy for Education.

More information: <https://astro4edu.org/worldwide>

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**Structure of education:** Bangladesh follows a National Curriculum which is compiled by a Ministry of Education (MoEdu). The primary medium of instruction is Bengali, but there is an “English version” available for students who want it to be delivered in English. This National system runs under three levels – primary level (there is a separate ministry for that), secondary and higher-secondary level, and higher education level. Bangladesh has a total of 129258 primary schools out of which 65,620 are government schools. There are about 16 million students enrolled in primary schools and more than 7 million students in secondary schools. Primary education is a 5-year cycle while secondary education is a 7-year one with three sub-stages: 3 years of junior secondary, 2 years of secondary and 2 years of higher secondary. The entry age for primary is 5 years. The junior, secondary and higher stages are designed for age groups 11-13, 14-15 and 16-17 years. Higher secondary is followed by graduate education. There is another alternative to it – students can opt for technical and vocational education by omitting the higher secondary and graduate degree stream, so that they may find a quicker job placement. Primary education is compulsory, and there is a plan under process to extend it up to grade 8. There are, however, two other streams of education – private “English medium” that follows GCE / IB / IGCSE / Cambridge O/A-level curriculum with English as principal medium of instruction; and “religious schools” with Bengali and Arabic as medium of instruction (some of these follow governmental religious curriculum, while many are private and follow age-old sub-continental tradition).

**Education facilities:** Bangladesh public sector schools have typical class sizes around 35-40 students, often more. Almost all schools have running water and separate male and female toilets. Most government schools are “pucca”, i.e. brick-walled. Many are actually more than two storied. About 50,000 schools have internet access of some sort. Typically, schools in the district towns and big metropolitan cities have better infrastructure. Public schools don’t have any sort of student transport service, but some private schools have separate arrangements. Parents arrange transportation on their own for their children.

**Governance and organisation:** Government schools in Bangladesh are run by Ministry of Education and Ministry of Primary and Mass Education (MoPME) according to their jurisdiction. However, the curriculum is managed by MoEdu. Teacher recruitment is done by relevant ministries as well. Seven Boards of Intermediate and Secondary Education are responsible for conducting the public examinations such as Secondary School Certificate and Higher Secondary Certificate level public examinations. Among these school boards, other than logistical matters and question patterns for certificate examinations, the governing structure is the same. These Boards through their district and sub-district education offices run and manage their local schools.

**Teacher Training:** Bangladesh has 158 Teachers Training Colleges and Institutions in district level, each sub-district level has one training center situated for primary level school teachers for in-service, local, need based and continuing training for teachers. We have some pre-service training, some in-service basic diploma training and continuing job training for teachers after they start teaching. MoEdu has a National Academy for Educational Management which provides in-service training to senior educational administrators and teachers of the secondary and higher secondary levels. MoPME has a similar academy for primary education which provides all kinds of in-service training (Basic, Foundation, Educational Management etc.).

**Astronomy in the curriculum:** There are no specialized school courses in astronomy. We do not have any university offering B.Sc./M.Sc. degrees in astronomy. Subjects related to astronomy, however, start appearing from grade 4 in the National curriculum. Astronomical topics appear under “general science” between grades 4-to-8: in each grade’s science book, there is a chapter on Universe or Solar System or The Earth. For grades 9-&-10: astronomical topics do not appear directly in the science book for non-science majors, nor in the physics book for science majors; but the textbook on geography covers one chapter on Universe. However, in grade12 physics textbook, there appears one full chapter on topics related to astrophysics and cosmology with some equations and mathematical problems. Astronomy is under-represented in the present school curriculum as a ‘gateway’ STEM subject.

**Astronomy education outside the classroom:** Bangladesh so far has only one National Museum of Science and Technology and one planetarium under the Ministry of Science and Technology (MoST). Unfortunately, both of these are based in the capital city, though MoST organizes and helps distant schools to arrange visits for their students. The ministry has plans for extending a few more scaled-down versions of science museums and planetariums to other important cities. Other than that, Bangladesh Astronomical Society arranges a yearly basic astronomy course for the laymen to learn some basic astronomy. Other clubs also arrange similar but sporadic events. Bangladesh arranges Astronomy Olympiads by two separate groups and sends student participants to IAO and IOAA.

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