

## ASTRONOMY CLUB IN PRIMARY SCHOOL "VASA ŽIVKOVIĆ" IN PANČEVO

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**Abstract.** The oldest primary school in Pančevo, "Vasa Živković" is well-known for its educational and cultural mission in the region. It is the place where many young generations learned about the world, nature and the Universe. One of the numerous school clubs is the astronomy club "Astronomical crew". Here we give a brief report on our club and describe its activity.

### 1. "ASTRONOMICAL CREW" PROJECT

The "Vasa Živković" primary school is one of the oldest primary schools in the county of South Banat. It was founded as early as 1878. Its name has been often changed; since 1971 it bears the name of Vasa Živković, renowned priest and poet from Pančevo.

This is a modern school dedicated to the integral development of its pupils and their personality. Therefore, following the initiative of our pupils and teachers, the school has established many extracurricular activities, such as: "Young physicists", "Mathematical youth", "History club", "Recitation club", "Journalist club", "Art club" and "Astronomical crew". We are especially proud of our astronomy club, since our school is the first one in the municipality which has started with the popularization of astronomy in primary schools.

Being a professor of Geography, which is a multidisciplinary science, made it easier for me to recognize what are the most interesting topics for my pupils and when is their activity (e.g. research, curiosity, creative approach to learning, etc.) at maximum. Those topics were, without any doubt, the ones connected with astronomy. Therefore, we organized regular visits to the Planetarium at Kalemegdan fortress in Belgrade, typically once or twice during a school year. Moreover, the fifth grade topics "The Universe and the Earth" and "The Planet Earth" are so interesting for our pupils that one class hour per week is not enough to satisfy their needs and interests. That was the reason why we have decided to start the school club of astronomy where pupils could spend time learning about astronomy. The school principal Tomislav Stošić and the Head of the People's Observatory and Planetarium at Kalemegdan Nataša Stanić, were informed about our initiative to form an astronomy club, and they both accepted and supported the project. The club formally exists from September 2006 and it was named "Astronomical crew". Since its foundation more than 50 primary school pupils have become members of the "Astronomical crew".

## 2. THE CLUB ACTIVITIES

First of all, I have collected the literature containing the topics appropriate for the fifth grade pupils and made the curriculum of the club. The literature we use is: "Astronomical Atlas" revised by Aleksandar Otašević and published by "Creative center", magazines "Astronomija" published by "Spremo" - Novi Sad, and "Vasiona" published by the Astronomical Society "Rudjer Bošković" from Belgrade.

The curriculum is divided in two parts: theoretical and practical. The theoretical part of the curriculum is carried out from September till June. We meet twice per month in the Informatics classroom (in order to use the computers). The following topics are usually covered: "The History of Astronomy", "The Solar System" (the Sun, planets, satellites, asteroids, comets and meteors), "Stars" (evolution), "Galaxies" (with the emphasis on the Milky Way), "How the Universe was created" (the theory of the Big Bang). Within the course we watch documentaries and scientific films on various astronomical topics, we make presentations, read magazines, etc. On the school info board pupils can find the topic of the next meeting, so that they can prepare for the planned activities. The meetings last 90 minutes and typically 15-20 pupils attend.

The pupils are from different classes, but we have noticed that the most numerous are the girls from the fifth grade. Also, the number of pupils present is larger when we play films about planets and the life on them, and the documentaries dealing with the existence of life in the Universe in general. They also enjoy giving presentations about their favorite subjects in astronomy.

The second part of the curriculum is practical. Due to the light pollution in Pančevo the Astronomical crew, together with the Art club, spends seven days per year at the Divčibare mountain. There are usually 15 pupils of our Astronomical crew, but many other pupils who would like to spend their time at Divčibare can join our group. The atmosphere in the camp is mixed - a combination of work and fun. In the morning we watch documentaries and science movies or pupils give their presentations, while the afternoons are reserved for walks with the friends from the Art Club. If the evenings are clear, we observe stars and planets with the telescope. We can say that our pupils combine "the beauty of art with the glitter of stars". The authors of the best presentations "The Moon - our natural satellite", "The Sun - the source of life on Earth" and "The Galaxies" were modestly awarded.

The STAR 700/60 SKD telescope was purchased by the parents of our group members as a support and an impulse for further activities. In June of 2007 we observed the Venus, the Saturn, the Jupiter, the Moon, we localized the Northern Star, and we performed the exercises in space orientation. In June of 2008 we managed to observe only the Moon, but we built the sundial in our hotel.

The Astronomical crew presented its activities during the Belgrade Astronomical Weekend, organized by the Astronomical Society "Rudjer Bošković". Also, we together participated in programs of Radio Belgrade 1, TV B92, and TV Pančevo.

In the future we plan to make use of mass media to inform more people of Pančevo about our astronomy club and to popularize astronomy and its role in the modern society. Also, we expect from the local authorities of Pančevo to help us in buying a new, bigger telescope and laptop computers, which would enable better quality of work of our club.