

School Clubs Combined with Ecology

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Abstract: The ecological civilization education will be introduced into primary school courses in the future, aiming to enhance people's environmental awareness. As the model school of Beijing green ecology and sustainable development education, Beijing experimental primary school attached to Capital Normal University, focus on new energy and sustainable development education, has been practicing and exploring effectively on ecological education. Detailed works are as follows: Making sure the educating purpose of ecological technology educational development; Improving the normative development of ecological education; Training and taking good advantages of core teachers; Constructing ecological special course system; Combining the school clubs with social programs with wonderful works created by both teachers and students.

Keywords: students' clubs ecological environment; Technology ecosystem characteristic campus

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1 Introduction

Beijing experimental primary school attached to Capital Normal University was founded in September, 2010. Before then, it was called Huang Gang primary school attached to Huang Gang middle school. In August, 2013, Chaoyang education committee signed an agreement with Capital Normal University, to change the name officially. Our school has 5 campus, more than 100 classes, about 4000 students. It is one of the largest and most influential schools in southeast area of Beijing.

2 Practicing the school-running idea; pursuing the ecological development goal

Beijing experimental primary school attached to Capital Normal University, as the model school of Beijing green ecology and sustainable development education, focus on new energy and sustainable development education, has been practicing and exploring effectively on ecological education, combined with our school running idea—Let everyone be wonderful. And the cultivating goal—“One core, two awareness, three acquirement, four abilities. For the students' development, we follow the self-explore rule, and by using new energy classroom, we teach students knowledge about new energy and renewable energy. Students can also experience and feel these two technology, we aim at motivating their research interests on ecological civilization, new energy and renewable energy.

From the technological special campus aspect, we take good advantage of the new energy classroom, which symbolizes the ecological and sustainable development, and making it into a special part of ecological special campus.

3 Improving institutional construction and promoting the standardized development of ecological education

3.1 Strengthen team

Principal Tong Jing is the team leader of our school's ecological education, the moral and science director take in charge of the ecological education. Although there are 5 campus altogether, but all departments can cooperate very well together.

For the past three years, our school has set up a three-year plan for ecological education, according

to the city and district's plan as well as our own situation. In School development planning, we make new energy classroom as the breakthrough point of ecological education, by putting independence exploration and innovation elements in practice. We summarize and reflect on the ecological education every year, and constantly improve the level of school ecological education. In the ecological education planning, the key description of the ecological community is given to ensure that the work of the community is carried out in a planned way.

3.2 Software and hardware support and guarantee

Our school attaches great importance to the basic construction and activity practice of ecological education. There are fully complete ecological education site, facilities, hardware and software tools and materials, which are used frequently. In 2016, the school invested a total of 200,000 yuan in the construction of new energy demonstration classroom, which build an ecological education platform that meets the needs of primary school students. In 2017, a total of more than 450,000 yuan was invested in the development and implementation of new energy exploration activities. In 2018, a total of 150,000 yuan was invested in the construction and implementation of basic courses of new energy to realize the improvement of ecological education from hardware to software.

At present, our school has 3 ecological education activity rooms, which are fully equipped with hardware and equipment, which can meet the needs of daily education and teaching activities. For example, The touch screen in the new energy classroom is a good information technology resource. Teachers will input relevant content into the system in advance, and students can understand and master relevant knowledge through touching.

In order to help students understand the new energy, we installed six energy models for students in the new energy classroom for studying. In addition, the school also has rich social resources. We also organized students to explore new energy facilities in the community, do research and study activities in new energy base. These resources further broadened students' horizons and stimulated their interest in learning. In addition, our school made full use of the campus radio, board, website and other websites to publicize ecological knowledge and achievements.

Consciousness leads action, deeply grasps the ecological education activity room, firmly establishes the ecological environment protection consciousness, lets everybody love the environment, protects the environment, treats the environment.

4 Strengthen the teachers team in ecological education

4.1 Teachers' team

Our school puts teachers training in a prominent position. A team of 11 ecological teachers has been set up in Jinbei Campus. Among them, Teaching Director Sun Fang is Beijing core teacher in science and technology. Jin Cheng and Liu Yi are Chaoyang district core teachers. All the core teachers account for 36 percent in our school. There are 2 senior teachers and 7 first-level teachers in the ecological teachers team. It is obvious that they have high experience. In order to improve the level of ecological civilization education, we also invites experts and teachers.

4.2 Technological teaching and research activity

In order to strengthen the construction of ecological education teachers, our school has intensified the training. We not only arranges various training for 37 times, but also use school-based training to improve teachers' ecological literacy and innovation ability.

For example, in the micro Lesson competition for science teachers, teachers can improve their teaching ability by training ,designing lesson, attending classes, discussing and self- reflecting. There are also special core quality training for all students.

5 Construct ecological characteristic curriculum system with six core qualities as the framework

5.1 School-research courses

In strict accordance with the provisions of the Ministry of Education, our school set up a full range of science and technology education courses. In addition, under the guidance of the core quality for The development of Chinese students, our school has set up 67 school-based courses according to the six categories of quality, among which 24 are science and technology school-based courses. Such courses can cultivate students' experience in new energy, improve students' ability to use new energy technologies,

and develop their potential in the application of new energy, so that students gradually have the spirit of exploration and innovation in new energy and renewable energy.

To ensure that every child can participate in the new energy school-based curriculum, our school takes the new energy school-based curriculum as the compulsory course for the sixth graders, and carries out activities in classes. At the same time, in grades two to five, the school arranges optional courses according to students' learning needs for new energy. In this way, children are guaranteed to receive ecological education activities themed on new energy. ecological civilization club

Every semester our school sets up a student club for an hour after class. Among them, 52 students participated in the ecological civilization club. The club has corresponding management and attendance checking system to ensure the activities go on effectively.

Students enter the club from the second grade until they graduate. During 4 years of studying, The students gradually improve their abilities and form different teams according to their levels. Ecological teachers design various training evaluation forms, and students' self-management ability is also improved.

During the past three years, our school has provided more than 40 science and technology talented student for many famous middle schools. Such as No.80 Middle School, Chen Jinglun Middle School, Chaoyang Foreign Language Middle School and so on. These talented students become the backbone of the school's science and technology activities.

School Activities

In order to enrich students' after-school life, and improve their scientific and technological quality. To cultivate students' environmental awareness and new energy utilization ability. Therefore, our school actively responds to the call of the superior department. We will actively carry out activities around the theme of World Environment Day. At the annual environment Day, we got all the students involved, and create a strong atmosphere of ecological protection and promote the improvement of students' ecological quality. At the same time, our school undertake several ecological education activities positively. In May, 2016, our school held "Caravans in school" activity, which carried out a series of publicity activities on energy conservation,

environmental protection and low carbon. The purpose is to promote the knowledge of low carbon and environmental protection. In November, 2016, The Comprehensive Office of the World Bank Loan Project Leading Group of Beijing Municipal Commission of Education, Beijing Institute of Education and Science, and Beijing Institute of Comprehensive Practical Education jointly hosted the on-site meeting of promoting students' Core literacy of new energy and renewable Energy courses. As the host school, our school presented the practical courses at the meeting. In 2027, our school held activities such as Tree-planting Day and Water Conservation Lecture. In 2018, our school held activities such as "Growing up with plants together" and Exploring the destination of e-waste". And won the title of China's sustainable development education outstanding team and Beijing Ecological environment Education Base. With so many activities, the atmosphere of ecological education becomes stronger, and teachers are more conscious of penetrating ecological education content in various disciplines to cultivate students' ecological quality.

Social Activities

In the past three years, our school has participated in more than 70 ecological communicate activities. Students' environmental awareness has been improved and their comprehensive quality has been cultivated. Among them, students from ecological civilization club have participated in 23 ecological communicate activities at the municipal level and 4 ecological communicative activities above the municipal level.

6 Educational and radiative effects

6.1 Students' works

With the continuous practice of ecological civilization education, students organize their understanding of new energy by mind map. They also express their idea of solving problems with the help of new energy through the form of science fiction paintings, Moreover, through the way of Jinpeng Innovation and Technology Forum, they can sort out their thoughts on new energy and write them down, and gradually materialize them into research works that can be spread one day.

In 2016, Cao Chuncii and Ma Peilun proposed to make more students know about new energy by using

flying chess according to their study of new energy in class. At the same time, they designed sketches and participated in the science and Technology Innovation competition and won the first prize at the municipal level.

In 2017, On the basis of the original flying chess, Jin Jiayue and Zhang Yichen modified the flying chess by improving its design, enjoyment, appearance, and formed the final version of flying chess. Their works participated in Jinpeng Science and Technology Forum and won the first prize. In 2018 they also participated in the exhibition of The Student Science and Technology Festival in Chaoyang District.

In the past three years, our students participated in the Plant Cultivation Competition for Primary and middle school students in Beijing and the 6th Wildlife Protection Knowledge competition for primary and middle school students in Beijing. More than 500 students won prizes, and 14 students won the first prize.

6.2 Teachers works

In the past three years, teachers have made outstanding achievements in guidance. 180 teachers of science and technology have won awards, among them 28 teachers of ecological civilization have been awarded at national level.

During 2017 and 2018 semester, Explore new energy professional teachers published 5 articles. While actively exploring the ecological education, teachers use new energy demonstration classroom as practice platform, complete the school-based teaching materials 《Resource and I hand in hand》 《Conservation Workshop》 and 《Explore new energy》, the teachers also actively participate in the Beijing institute of education science organizes “clean energy STEAM course”, Jin Cheng(the science teacher) is responsible for the wind and ocean energy part, Liu Yi(the science teacher) is responsible for nuclear power part, Lii tong (the science teacher) is in charge of hydrogen part.

6.3 Radiation Effects

While groping for the practical experience of ecological education at the same time, our school also pays attention to the accumulation of summary, and plays the role of radiation.

In January, 2016, In the new energy demonstration Classroom, our school held a forum with the theme of new energy. All the full-time teachers taught a new energy theme class. At the forum, we summarized and

exchanged the research results, which was praised by the experts and leaders who attended the meeting. More than ten primary schools in Shibaldian school district came to our school and listened to The new energy course taught by Jin Cheng. Teaching Director Sun Fang Shared and reported the exploration of new energy course, which was highly praised by all the guests. She is not only promoted the quality courses of our school to The Shibaldian area, but also promoted the characteristic promotion of this area.

In January, 2018, Finnish students came to our school to design and produce new energy works with our classmates based on the theme of new energy. Not only did we invite their teachers to our school to listen to the demonstration lesson ,visit activities, but also sent our teachers to their schools to communicate and learn. By inviting in and out, we can exchange experience with hand in hand schools in ecological education to realize complementary advantages. Awareness of action is key. In the past three years, our school's ecological education has not only been recognized by the society, but also been reported 15 times by the media. Beijing Morning News, Beijing educator magazine , chaoyang Education Committee website, China brand education network and other media have also reported on our school's characteristic education and competition awards.

Everyone is a beneficiary of ecological environment and should protect it. Together, we will build a beautiful China. In the future, our school will further embody the characteristics of ecological civilization in the campus and cultivate students' social responsibility and practical innovation ability. Let students learn to learn, improve students' awareness of environmental protection and healthy life awareness. To enrich students' cultural heritage, let children know that there is energy everywhere in life, to cherish energy, contribute their efforts for environmental protection and human healthy life.

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