

## **Ofanim Educational Program**

### **Ofanim educational program purposes**

#### **The main purpose:**

To bring the students closer to the academic world, world of science, technology and art by varied interdisciplinary experiences.

#### **Additional purposes:**

- To establish the children's proficiency in research and inquisitiveness
- To offer the students an observational and hands on experience
- To encourage individual learning and personal growth of every child
- To develop social skills, such as cooperation, mutual respect and team work

### **The Ofanim Vision**

The Ofanim association's aim is to promote the periphery children.

Here at the Ofanim association we believe that the potential is everywhere, and that is why we act as a driven force, by means of enrichment and exposure, to reassure the growth and the potential fulfillment of the distant periphery towns' children and youth, in their place of living. All that, in order to give children equal opportunities, and to strengthen the Israeli society.

### **Computer Program – Digital Community**

#### **Target audience: 3<sup>rd</sup> – 4<sup>th</sup> grade**

The computer program, designed for this age, concentrates on different aspects of the children's life and the life of their community, by using various computer programs and computer technology on every meeting. At the beginning of the program the children are focusing on themselves and their families as a part of the community. Later on they are required to think about town and community issues in a creative and innovate way and in a wider perception.

The main emphasis of the program is on the use of computers as means and not as a target. Using the computers, we will go deeper in other areas, such as the community, team work and personal fields of interest. This way, the children will indirectly expand

their computer skills. The teaching is based on a program by Intel Incorporation, and was written in cooperation with Tapuach Association.

### **Arts Program – *Illustration and Animation***

**Target audience: 3<sup>rd</sup> – 4<sup>th</sup> grade**

In this program the children are exposed to the world of comics and animation, getting acquainted with different kinds of art, design and graphics. The children will learn the basic terminology of these fields and will acquire skills in working with pencils and paint, will create comic strip with their own hero, will draw caricatures and will create different kinds of plastic arts. By these means the children will express their personal world in their art pieces, as well as find ways to express themselves, to cooperate and to create individually and as a team. The program final project will be to create a team work comics book, in which every child will express himself/herself in detail. In addition, it will be a team effort art piece, which will convey the peak of the whole year's process.

### **Technology - *Science around the Globe***

**Target audience: 3<sup>rd</sup> – 4<sup>th</sup> grade**

Teaching science by means of technology, experimentation and models building. In this program the children are given small “portions” of various fields of physics – optics, mechanics, electricity, magnetism, etc. The program aims to bring the participants closer to science and technology world, and to make them love it by varied interdisciplinary experiences. The program consists of “meetings” with scientists from around the globe, acquaintance with the scientists, their time and country, while learning their past inventions and their transformation nowadays. After every theoretical class with games and experiences, the children build models, based on the scientist's invention. In the end of the year the children participate in the “Young Inventors” project, in which they themselves invent as a team their own invention, based on the acquired knowledge.

### **Engineering - *Young Engineers Program***

**Target audience: 5<sup>th</sup> – 6<sup>th</sup> grade**

Children participating in this program experience a fascinating and stimulating meeting with the various engineering fields: biomedical and biotechnology engineering, civil engineering, electricity and electronics, industrial engineering and electro-optical

engineering. Thus, the children are widely exposed to different subjects, acquire a lot of knowledge and develop different skills. The program consists of various aspects of the engineering world which are taught the way they are in the Academy – through theoretic learning and after that a practical activity, such as project or model building. By these means the program relates the children with the everyday life through the connection to a wide variety of subjects, such as nature, engineering, architecture, electricity, game theory, etc. The program is based on creating an acquaintance with the engineering terminology by direct and indirect learning, by using, among other things, games, riddles, video clips and different teaching methods that encourage learning through experience.

### **Technology - Digital Media Program**

**Target audience: 5<sup>th</sup> – 6<sup>th</sup> grade**

In this program the children will learn visual art material in a computerized environment, by getting acquainted with the computer art, graphics and animation. The activities teach the children about different subjects through activities such as collage making, picture editing, graphic elements production and creation of animations. By these creations the children will express their inner world.

In the weekly meetings the participants realize the integrative subjects they have acquired and apply them while combining all the senses in experience and creation. The creative processes will be expressed in different subjects, such as science and technology, arts and medicine, as well as personal issues, such as family, hobbies and dreams.

### **Robotics – Program Co-Sponsored by Israel's Technion**

**Target audience: 5<sup>th</sup> – 6<sup>th</sup> grade**

The unique Ofanim robotics program in cooperation with the Academy provides its participants with basic science and engineering terminology. The children in the program will plan and build computer controlled robotic systems. The children will get acquainted with various engineering systems and control types, and learn to write computer software which allows to program robotics systems. The activity is full of experience and fun, and takes place in the University labs and in the Ofanim mobile labs, with the guidance of an experienced teaching team. The 5<sup>th</sup> and 6<sup>th</sup> graders will exercise scientific and technological thinking and acquire the needed knowledge through enjoyable lab experiments, and will focus on thinking, planning and building processes.