

# National competition Eduki 2017-18 - Why school?

*Towards quality education for all*

## **Sale in zucca!**

Growing messages in a Pumpkin garden...



Poster exhibited at the entrance of the Natural History Museum of Lugano, elaborated by prof. R. Amman with 12<sup>th</sup> grade students of Liceo cantonale di Lugano 1.

### **Liceo cantonale di Lugano 1**

**Participants:** 3HLN classes in collaboration with the following classes: 1ACNR, 2AJ, 3C and a special needs Secondary I school class

**Coordination:** Manuela Varini and Paola Manghera (teachers)  
in collaboration with Muriel Hendrichs (L'alberoteca),

Eleonora Bourgoïn (Lugano al Verde), Pia Giorgetti (MCSN), Manuela Ghezzi (ProSpecieRara), Giovanni Casari (Azzurro Imaging) and with the contribution of many teachers and collaborators.

### **In collaboration with**



*Coop-ProBienen, Radical woodworking and a Secondary I school*

### **With the support of**



# 1. Introduction

*Sale in zucca!*<sup>1</sup> is a project that started in spring 2017 as a didactic pumpkin, beans, corn and edible flowers garden of *Liceo cantonale di Lugano 1* and involved several side projects inside and outside our school. About ten classes participated (from 12<sup>th</sup> to 15<sup>th</sup> grade), as well as a special needs class, but two scientific classes were mainly involved<sup>2</sup>.

The projects' objective is not only didactic, but it also aims at raising awareness on the importance of **urban biodiversity, organisms' interactions, sustainable agriculture, local production, impact of human activities and daily consumers' choices** on ecological footprint and global warming, therefore to the importance to provide enough food to an ever-growing world population, while **respecting human health and nature**. This also aims at encouraging **students' ideas and collaboration** to reach a **common goal**.

Our school project has been carried out in collaboration with *Lugano al Verde* (City of Lugano), the *Natural History Museum of Lugano (MCSN)*, *L'alberoteca*, *ProSpecieRara*, *SlowFoodTicino*, a *secondary I school of Lugano*, *COOP-ProBienen*, *Azzurro Imaging*, *Le zucche della valle del sole*<sup>3</sup>, *Radical Woodworking*, *Ticino Vegetariano* and with the support of the *Swiss Academy of Natural Sciences*, the *Ticino Society of Natural Sciences* and the association *Capriasca Ambiente*. Moreover, many people gave their contribution in several different ways.

Seven primary school classes and two secondary I special needs classes could benefit of free didactic visits organized by the *MCSN* in collaboration with our students. Some of them were also involved in the realization of the projects' [video](#)<sup>4</sup>, in interviews with local medias, in the elaboration of written and oral presentations and in the organization of a *Pumpkin festival* last autumn. For that occasion, several conferences and debates on sustainable projects were organized for nine 15<sup>th</sup> grade classes. During the fest, several events, side activities and a public presentation were also organized.

The project is going to be carried on outside our school as well, as the two classes, which were mainly involved, collaborated with the *City of Lugano* and *L'alberoteca* for the elaboration of a thematic *Pumpkin garden* in the Tassino Park, one of our town public parks. Also the students of the special needs class will give their contribution to the realization of this new garden. This phase of the project is going to enable our messages to reach an even wider spectrum of the community. Moreover, next spring the school pumpkin, vegetable and flower garden is going to be cultivated again, under the care of biology teachers and other 12<sup>th</sup> grade students.

Altogether, about 250 students and 50 people collaborated in many different ways to the project and probably 1'500 people took part in the activities, lessons, conferences and/or events. The video of the project had 3'700 visualizations on Facebook and is going to reach even more people as it is going to be shown during the yearly exchange between our school and a Secondary II school in Hangzhou, China, in April. We were also invited to participate to the short films on urban community gardens *Humus Festival*<sup>5</sup> in Madrid in March.

## 1.1. How it all started...

In February 2017, after the visioning of the documentary *Tomorrow*<sup>6</sup>, that was organized for 15 classes of our school, a scientific class expressed its interest in creating an educational and urban garden to Paola Manghera, their geography and Manuela Varini, their biology teacher. The students were moved by the film, which encourages to take concrete actions in the communities in order to contribute to a better world and future.

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<sup>1</sup> The Italian expression 'sale in zucca' has a double meaning: literally it means 'salt in a pumpkin', but 'zuca' can be used as an idiomatic expression for 'brain', to have 'sale in zucca' means: to be a smart and responsible person.

<sup>2</sup> 3LN and 3HL for the school year 2016-17 (14<sup>th</sup> grade), which became 4LN and 4HL in the current school year (15<sup>th</sup> grade), they have a scientific curriculum.

<sup>3</sup> Pumpkin growing project with the population of the Blenio Valley.

<sup>4</sup> <http://www.liceolugano.ch/index.php/video>

<sup>5</sup> <https://www.lacasaencendida.es/en/competitions/humus-film-fest/humus-film-fest-2018-8012>

<sup>6</sup> Dion, C., Laurent, M., 2015. *Tomorrow*. Movemovie and Mars Films. Paris.

This is how the whole project started. Subsequently, other classes, who actually had also expressed their interest in creating a school garden following the film's visioning, as well as the above-mentioned partners, were involved.

Pumpkins were chosen for several reasons: they mature in autumn and do not need much care during the summer time (when our school is closed). Moreover, although not so many varieties are available in commerce, their biodiversity is very wide and productivity can be high. Being associated to myths and tales and because of their different sizes, colors and shapes people generally like them and find them funny. So they make a perfect and positive communication vehicle.

The project consisted of two main phases:

- 1) the creation of an educational *pumpkin garden* on the school grounds and several side activities between spring and autumn 2017<sup>7</sup>;
- 2) the collaboration of our students to the elaboration phase of a *Pumpkin garden* in the Lugano Tassino park, which will be implemented in spring 2018.

## 2. The project's objectives

On the one hand, the project's objective is a didactic one. A vegetable garden in school allows further investigation of several themes that are otherwise only studied in theory. For example, it gives the chance to deepen the students' knowledge of themes such as **plants physiology and reproduction**, the process and meaning of photosynthesis, the importance of **urban biodiversity** and **organism interactions** (some of those can dramatically raise productivity, as for example interactions among soil fungus, bacteria, pollinators and plants).

Moreover, it also helps to raise **awareness on sustainable agriculture** principles, such as those applied in organic cultivations and in permaculture. It underlines the advantages of **local production**, and, on a wider scale, on the main impact that human activities and daily consumers choices can have on our **ecological footprint**, on the elements' cycles and thus on **global warming**. To raise awareness in young generations of the fact that sustainable agriculture, on a wide scale, is one of our main challenges for the future, is essential. This, in order to be able to **provide enough food** to an ever-growing world population, especially in developing countries, while at the same time **respecting the environment and human health**.

Creating a school garden has also the objective to encourage students' **collaboration** in order to enhance the importance of working together to reach a **common goal** and to contribute to a better future for us all. The development of agriculture in urban areas is a new model based on a living which is more connected to land and nature as well as being a mean to encourage **local production**. These new models of cities are not only studied in the classroom, but are also actively experienced, through these kind of projects.

### 2.1. How our project meets the Eduki goals

As mentioned on the Eduki website: *'the 17 universal goals, known as the Sustainable Development Goals (SDGs) that make up this agenda propose concrete solutions for a sustainable development by 2030. One of the goals, SDG 4, is to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".'*

- **What are the obstacles to education here and elsewhere?**
- **How does education help reduce poverty, wars, and improve living conditions for all?**
- **What skills can be developed at school for a sustainable future?**
- **What would the ideal school look like in 2030?**

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<sup>7</sup> The costs of this phase are on Attachment 1, the flyer of the *Pumpkin festival* on Attachment 2.

Education should not only concentrate on traditional lessons, but also on opening the mind of the citizens of tomorrow and give them the means to be able to face the major challenges in an ever changing and fast going society, this with concrete projects as well. The students should be sensitized to environmental, social and health problems that globalization engenders worldwide. They should be given some tools that will help them to give a contribution to a better and more peaceful world in the future, in whatever field they will be active. This is also one of the main aims of our project.

Moreover, at the beginning of our project there was an act of vandalism to the garden, which momentarily was a major set back for the students involved as well. It turned out however to be a great opportunity to deal with negative feelings and frustration and to decide to react positively to an act of aggression. This, by replanting, fixing the damages and writing, for example, messages of forgiveness on posters by the garden and inviting the vandals to come to our celebrations in autumn. There were no more acts of vandalisms thereafter. To be able to deal positively and not giving up when facing this kind of obstacles is the first step to reduce conflicts in every field in life, which is the basis for more peace in this world. Had we only studied theoretical concepts in our classroom, we would not have had the chance to address this issue and to consciously decide to react positively.

- **How is it possible to provide quality education, which respects the diversity, needs and abilities of each student?**

Our garden gave us the opportunity to try different didactic approaches, based on a concrete project and adapted to the age of the students involved. For them, it was the basis to deepen their knowledge and understanding of the previously mentioned issues.

It also gave us the chance to include in our activities some students from the special needs class, which is also present on our institute grounds. This small class, and their teachers, helped us on several occasions, always with great enthusiasm. This allowed us all to create further bonds with our students and to experience inclusive moments that were humanly enriching.

Throughout the whole project the students of the two classes which were mainly involved, were divided into smaller working groups, also depending on their personal interests, and could therefore be part of side projects. Some students helped a professional to elaborate the idea of the [video](#) storyboard of the project. Other students collaborated with the *MCSN* to elaborate educational activities for primary school classes and secondary I special needs classes. They could interact with children, explain our project to them and share their knowledge in a simplified way. Therefore, our project gave them the chance to interact with other schools pupils.

Our students also presented the project to the [Powerup Radio](#)<sup>8</sup> in collaboration with the *Pestalozzi villages* and *éducation21*<sup>9</sup>. Some of them were interviewed by local medias (radio and TV). A few of them also presented the whole project to the public and were involved in writing articles on the students' school magazine and on the *STSN* yearly Bulletin.

What is interesting in this approach is that some of our students really became teachers, speakers and ambassadors of the project messages outside the school. Moreover, they had the chance to collaborate with external partners and professionals for the realization of concrete actions and projects. This gave them the possibility to be proactive, to widen their perspective and to get in touch with the 'real world' outside of school.

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<sup>8</sup> [www.education21.ch/sites/default/files/uploads/audio-i/2017\\_10\\_16\\_Lugano1.mp3](http://www.education21.ch/sites/default/files/uploads/audio-i/2017_10_16_Lugano1.mp3)

<sup>9</sup> Last autumn, the *Powerup radio* made a week tour in Ticino, interviewing classes that had developed sustainable projects: [www.education21.ch/it/powerup-radio#edu21-tab3](http://www.education21.ch/it/powerup-radio#edu21-tab3)

### 3. The creation of a pumpkin garden on the school grounds

The first part of the project consisted in the creation of a pumpkin garden on the school grounds, between spring and autumn 2017. Not only pumpkins, but also corn, beans, some varieties of carrots, aromatic plants, edible and decorative flowers were cultivated in a sustainable way. Altogether, ten classes participated, but mainly the two previously mentioned classes were involved in the side projects linked to the garden. The creation of an educational garden on our school grounds allowed the students to cultivate several plant varieties in five different areas (Figure 1) and to evaluate the results, also in view of the second phase of the project.

#### 3.1. Cultivated areas

Five areas, for a total of about 95m<sup>2</sup>, around the buildings of our school were cultivated in collaboration with the mentioned partners.<sup>10</sup>

**Area 1:** In this area (8x3m), a combination of pumpkins, corn and beans, the so-called '*three sisters*', were cultivated in collaboration with *ProSpecieRara*. This kind of cultivation used to be exploited by different populations of Native Americans. In fact, a traditional legend says that the '*three sisters*' always helped each other.

Actually, corn serves as a support for the climbing of beans, which, on the other hand, enrich the soil with nitrogen thanks to the bacteria growing on their roots. With their large low leaves, the pumpkins allow to keep the soil

moisture and avoid the growth of other herbs. There is also a '*fourth sister*', which is represented by the flowers of several plants, which help attracting pollinating insects. This is a method still used nowadays in permaculture, which exploits techniques that associate the cultivation of different plants, that can benefit from each other's presence. Permaculture in general allows better yields and is considered being much more sustainable than monocultures. See list of varieties planted on this area on *Attachment 3*.

**Area 2:** In this area (about 0.4x25m) we planted several aromatic plants (mint, lavender, rosemary, oregano, sage, thyme, savory, basil, helichrysum) and flowers (sunflowers, calendula, borage, poppies, flax, cornflower, rosa altea, mallow, amaranth, echinacea and various varieties of cosmea) in collaboration with the project for schools *Pflanzaktion 2017*<sup>11</sup> of *COOP – ProBienen*.

**Area 3:** In this area (about 2x14m), we planted nine ground growing pumpkins varieties and different flowering plants (see list on *Attachment 3*), surrounded by some small bamboo structures to contain pumpkin growth in collaboration with *L'alberoteca*<sup>12</sup>.

**Area 4:** In this area (four segments of about 0.8x8m), we planted fourteen climbing pumpkins' varieties and different flowering plants (see list on *Attachment 3*) and built solid wooden structure to sustain the plants' growth in collaboration with *L'alberoteca*<sup>12</sup>.

**Area 5:** In this area (1.5x5m) we planted several aromatic plants (mint, lavender, rosemary, oregano, sage, thyme, savory) and flowers (sunflowers and a mix of meadows flowers for bees) in collaboration with the project for schools *Pflanzaktion 2017* of *COOP – ProBienen*.

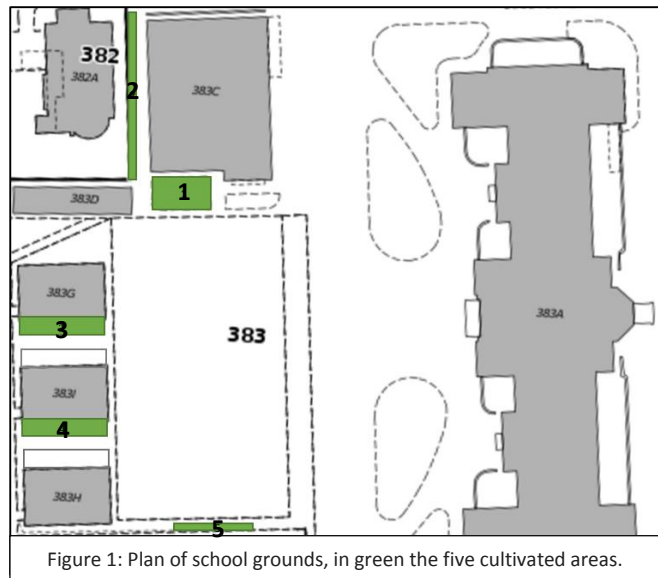


Figure 1: Plan of school grounds, in green the five cultivated areas.

<sup>10</sup> Some photos on *Attachment 5*, all photos on: <http://bit.ly/dropbox-photos-saleinzucca>

<sup>11</sup> <https://www.probienen.ch/de/pflanzaktion.html>

<sup>12</sup> Which selected the pumpkin varieties.

An irrigation system was installed and the ground was prepared by the students. The wooden and bamboo structures used to contain the pumpkins' growth and to facilitate the climbing of the plants were built in collaboration with *L'alberoteca* and *Radical woodworks* and with the students' help also in their spare time, between March and April. The cultivation methods we used, were always sustainable and organic, bio. During the summer, about forty students volunteered to take care of the garden. In autumn, the products were picked up and partly used for the fest organized at the end of October.

The seeds and plants were provided by *ProSpecieRara*, *COOP-ProBienen*, and several *private people*, in particular the Jermini family, whereas some others were acquired by *Sativa*.

#### 4. Other activities linked to the project

The students of the two classes, which were mainly involved, were divided into smaller working groups to help organize the *Pumpkin festival* in autumn 2017.

The students mainly contributed to the following chores:

- **Video:** contributions to the making of the project video with a professional.
- **Educational activities for primary schools and families:** contributions to the elaboration of educational activities with the *MCSN* (the didactic material is available on request).
- **Communication:** interviews with local media (radio and TV) and the *Powerup radio*.
- **Public presentations:** presentation of the project in public.
- **Publications:** writing of articles and texts about the project (for example, on the school students' newsletter, but also on the yearly Bulletin of the *Ticino Natural Science Society*<sup>13</sup>).
- **Activities, music and decoration during the festival:** contributions to the organization of different activities during the festival.
- **Appetizers:** preparation of the thematic appetizers for the fest and for the public presentation on October 27<sup>th</sup> and for the family activities at the *MCSN* on October 28<sup>th</sup>.
- **Pumpkin tasting with *SlowFood*:** helping during the festival, at the event *Ticino Vegetariano*.

##### I) The '*Settimana del gusto*'<sup>14</sup> of *SlowFood Switzerland* – from 14<sup>th</sup> to 24<sup>th</sup> September 2017

In 2017 *SlowFood Switzerland* chose the pumpkin as a representative vegetable of the *Food tasting week*, that from the 14<sup>th</sup> to the 24<sup>th</sup> of September involved cantonal school canteens. This coincidence was an opportunity to decorate the school canteen and the cafeteria with pumpkins, garlands, posters and other signs prepared by our students to promote the activities organized for the *Pumpkin festival* as well.

##### II) Discovering urban biodiversity in the pumpkin garden – activities for primary schools and special needs classes

From the 23<sup>rd</sup> to the 27<sup>th</sup> of October, the *Natural History Museum of Lugano* organized a week of free educational activities for primary school pupils and secondary I special needs classes with the presentation of the results of *Sale in zucca!*. These activities were offered to nine classes and were also developed in collaboration with some of our students.<sup>15</sup>

In addition, an Art teacher elaborated a poster of 1m x 1.3m with drawings and photos of pumpkins and flowers of the garden made by 12<sup>th</sup> grade students of our school. This was exposed at the exhibition window at the entrance of the *MCSN*.<sup>16</sup>

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<sup>13</sup> The article will be published in autumn 2018.

<sup>14</sup> *Food tasting week*

<sup>15</sup> All didactic material produced is available on request.

<sup>16</sup> See picture on front page.



### III) Pumpkin Festival: 27<sup>th</sup> and 28<sup>th</sup> of October<sup>17</sup>

#### Friday, October 27<sup>th</sup> – on our school

During the day, conferences on sustainable projects and debates<sup>18</sup> among students were held for nine 15<sup>th</sup> grade classes<sup>19</sup>. In the afternoon, a fest was organized with several didactic and ludic activities on the school grounds in collaboration with different classes, with music played by some groups of students and a *flash mob* by the school theater group. In the evening there was a public presentation and homemade pumpkin appetizers with students and partners.

#### Saturday, October 28<sup>th</sup>

#### Activities for families at the *Natural History Museum of Lugano*

Animations for families about life that can develop on a pumpkin garden and about urban biodiversity were organized and carried out, in collaboration with our students as well.<sup>20</sup>

#### Pumpkin tasting with *SlowFoodTicino* at the event *Ticino Vegetariano* at Lugano Congress House

The *laboratorio del gusto*<sup>21</sup> of *SlowFoodTicino* was organized by the natural food chef Meret Bissegger in collaboration with *L'alberoteca* and students of the project during the event *Ticino Vegetariano*. A pumpkin tasting was held of about sixty different varieties grown in our garden, by *Le zucche della valle del sole* project or other local producers.

## 5. The follow up of the project

In spring 2018, the school pumpkin, vegetable and flower garden is going to be cultivated again under the care of biology teachers and new 12<sup>th</sup> grade students. Moreover, our students contributed with their ideas to the elaboration and will participate to the plantation of the *Pumpkins' garden* in the Tassinio Park, in collaboration with *Lugano al Verde*, *L'alberoteca* and the other partners involved. The special needs class will also give a contribution to this phase. The gardeners of the city are going to take care of the garden. Several events and activities are going to be organized for the citizens in order to further spread the initial message of the students outside the school and to reach a wider public.

## 6. Acknowledgments

We thank all the students, teachers and the people, who contributed to the project. We thank the management of our school, our Dean Valeria Doratiotto-Prinsi, the vice-Deans Francesco Fiorito and Luca Rovelli and the management collaborator Luca Paltrinieri. We thank for the precious collaboration our partners: Muriel Hendrichs (*L'alberoteca*), Eleonora Bourgoin (*Lugano al Verde*), Pia Giorgetti (*MCSN*), Giovanni Casari (*azzurroimaging*), Manuela Ghezzi (*ProSpecieRara*) and Meret Bissegger (*Le zucche della valle del sole*). We thank the school collaborators: Michele Careggi, Laura Nottaricola, Sabaeta Qabrati, Daniele Saurwein and Renato Tonello. We also thank the teachers: Renata Amman, Daniela Amsler, Samantha Arigoni, Maurizio Binaghi, Annika Bough, Isabella Bustelli, Vania Della Chiesa, Barbara Kovacs, Fabio Lurati, Adriano Merlini, Paola Minen-Cavalleri, Monica Paltenghi, Giuseppe Rozner, Pietro Soldini and Lea Ticozzi. We thank the special needs class teachers Giovanna Solari and Manuela Peduzzi and the secondary I school Lugano director Fabio Cogoli, the teachers Massimo Alessi, Elisabetta Arn, Gerri Papiri and Walter Santimone. We thank the partners of the project Marco Borradori and Christian Bettosini (*City of Lugano*), Cecilia Waldvogel (*Lugano al Verde*), Filippo Rampazzi (*MCSN*), Lea Ferrari (*PSR*), Martino Singenberger (*Radical woodworks*), Fulvio Gianinazzi (*Capriasca Ambiente*), Lorenzo Pezzini (*Caminada sementi*), Marta Lenzi (*Ticino Vegetariano*), Sophie Ambroise

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<sup>17</sup> See flyer on Attachment 2

<sup>18</sup> On the model of the project *Jugend debattiert*: [www.jugenddebattiert.ch/de/projekt/debatte](http://www.jugenddebattiert.ch/de/projekt/debatte)

<sup>19</sup> See programme of conferences and activities on Attachment 4.

<sup>20</sup> All didactic material produced is available on request.

<sup>21</sup> *Tasting Laboratory*

and Claudio Cannello (*Officina del paesaggio*), Renato Guidetti (University of Milan), Zeno Boila, fam. Jermini from Oggio and Georg Winter. We thank the *Swiss Academy of Natural Sciences*, the *Ticino Society of Natural Sciences*, *COOP-ProBienen* and the association *Capriasca Ambiente* for their support.

## 7. Additional information

### Video of the project

Sale in zucca! Project description <http://bit.ly/saleinzucca>

**Facebook page** Sale in zucca [www.facebook.com/meravigliedellorto/](http://www.facebook.com/meravigliedellorto/)

Lugano al Verde – Sale in zucca [www.luganoalverde.ch/post/10/sale-in-zucca](http://www.luganoalverde.ch/post/10/sale-in-zucca)

Lugano al Verde – Le zucche in città <http://www.luganoalverde.ch/post/le-zucche-in-citta>

## 8. Interviews on local media

### Radio and TV

- Some students and partners took part in the radio emission Laser for Rete2<sup>22</sup>, August 15th 2017
- Interviews with students, partners and teachers for Powerup Radio – Villaggi Pestalozzi and Education21<sup>23</sup> and Testimonial for Powerup Radio, October 16th 2017
- Interview for Baobab for Rete 3, October 12th 2017
- Interviews also with a student for L’Ora della Terra for Rete 1,<sup>24</sup> October 22th 2017
- Interviews also with a student for Teleticino<sup>25</sup> during the fest, October 27th 2017
- Interviews by students and teachers for the documentary *La natura in città*<sup>26</sup> for the TV program *Giardino di Albert*<sup>27</sup>, RSI LA1, scheduled for May 2018

### Some articles on local newspapers and magazines

- Article on Corriere del Ticino, October 10th 2017<sup>28</sup>
- Article on *Giornale del Popolo*, October 27th 2017
- Article on LaRegione<sup>29</sup>, October 25th 2017
- Article on Educazione allo Sviluppo Sostenibile (ESS) per la Scuola 21 – Solidarietà<sup>30</sup>, *éducation21*, page 9, January 2018

## 9. Contests

**Special mention** at the Balconi delle farfalle 2017 contest<sup>31</sup>

**Participation** to the Humus Film festival, Madrid, in March 2018<sup>32</sup>

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<sup>22</sup> [www.rsi.ch/rete-due/programmi/cultura/laser/A-scuola-nell%E2%80%99orto-seconda-parte-9415900.html](http://www.rsi.ch/rete-due/programmi/cultura/laser/A-scuola-nell%E2%80%99orto-seconda-parte-9415900.html)

<sup>23</sup> [www.education21.ch/sites/default/files/uploads/audio-i/2017\\_10\\_16\\_Lugano1.mp3](http://www.education21.ch/sites/default/files/uploads/audio-i/2017_10_16_Lugano1.mp3)

<sup>24</sup> [www.rsi.ch/rete-uno/programmi/intrattenimento/lora-della-terra/Sale-in-zucca-in-diretta-da-Sapori-e-Saperi-9589399.html](http://www.rsi.ch/rete-uno/programmi/intrattenimento/lora-della-terra/Sale-in-zucca-in-diretta-da-Sapori-e-Saperi-9589399.html)

<sup>25</sup> <http://teleticino.ch/tg-tutti-servizi/un-progetto-col-sale-in-zucca-FF106272>

<sup>26</sup> *Nature in the city*

<sup>27</sup> Scientific Sunday evening TV program especially destined to an audience of children and teenagers.

<https://www.rsi.ch/la1/programmi/cultura/il-giardino-di-albert/>

<sup>28</sup> [http://bit.ly/saleinzucca\\_rassegna\\_stamp](http://bit.ly/saleinzucca_rassegna_stamp)

<sup>29</sup> [http://epaper.laregione.ch/@comunicazione\\_1/MU8RGOCO25J1](http://epaper.laregione.ch/@comunicazione_1/MU8RGOCO25J1)

<sup>30</sup> [http://www.education21.ch/sites/default/files/uploads/ventuno\\_i/ventuno\\_1\\_2018\\_IT.pdf](http://www.education21.ch/sites/default/files/uploads/ventuno_i/ventuno_1_2018_IT.pdf)

<sup>31</sup> *Butterfly balconies contest* by *Alleanza territorio biodiversità*, *Associazione Abitat*, *Società orticola ticinese* in collaboration with the *City of Lugano*. <http://www.luganoalverde.ch/post/16/balcone-delle-farfalle-2017>

<sup>32</sup> Short films festival on urban community city gardens. [www.lacasaencendida.es/en/competitions/humus-film-fest/humus-film-fest-2018-8012](http://www.lacasaencendida.es/en/competitions/humus-film-fest/humus-film-fest-2018-8012), [www.facebook.com/humusrevolution/](http://www.facebook.com/humusrevolution/)



## Attachment 1: Costs of the project

| <b>Detail of expenses for the pumpkins' garden <i>Sale in zucca!</i></b>                                 | <b>Total</b> |
|----------------------------------------------------------------------------------------------------------|--------------|
| Soil, natural fertilizer, mulch, tools, 2 timers and rain sensors, plants and other material - Caminada  | 1262.3       |
| Tubes and other material for irrigation - Caminada                                                       | 123.05       |
| 6m <sup>3</sup> of soil from Caiscio compost (40% compost) and transport                                 | 354.35       |
| 15 bags of mulch from Caiscio compost                                                                    | 108.55       |
| Chestnut pals for information panels from Afor                                                           | 102.5        |
| 4 trail cameras for the video                                                                            | 240          |
| Technical material from Migros do-it                                                                     | 167.4        |
| 100m of irrigation tubes and 100m connection tubes for irrigation - Offered by the <i>City of Lugano</i> | 0            |
| 50m of irrigation tubes and other materials for irrigation - Borrowed by a <i>Secondary School</i>       | 0            |
| Cristal and wooden plate for information panel - Borrowed by a <i>Secondary School</i>                   | 0            |
| 4 mulch bags of Caiscio compost - Offered by the <i>Officina del paesaggio</i>                           | 0            |
| <b>Seeds and plants</b>                                                                                  |              |
| Pumpkin and edible flowers seeds from Sativa                                                             | 99           |
| 96 aromatic plants and seeds for flowering herbs - Offered by <i>COOP - ProBienen</i>                    | 0            |
| Pumpkins, corn and beans seeds from <i>ProSpecieRara</i> - Offered by <i>ProSpecieRara</i>               | 0            |
| Several herbs seeds - Offered by <i>fam. Jermini</i>                                                     | 0            |
| About 100 Tagetes plants - Offered by <i>E. Arn</i>                                                      | 0            |
| Several aromatic plants - Offered by <i>G. Winter, P. Manghera and I. Bustelli</i>                       | 0            |
| <b>Material for the construction of structures for pumpkin containment and climbing</b>                  |              |
| Local bamboo sticks from Caminada                                                                        | 158.9        |
| Wood from Radical woodworks                                                                              | 456          |
| <b>Consulting and collaborations</b>                                                                     |              |
| L'alberoteca: consulting, support, lessons, pumpkin variety choice and preparation, structures           | 1500         |
| Contribution from <i>MCSN</i>                                                                            | -300         |
| Contribution from <i>City of Lugano</i>                                                                  | -600         |
| Two versions of the video, technical support of Azzurro Imaging                                          | 2500         |
| Radical woodworks, consulting and follow up of the wooden structure construction                         | 300          |
| Consulting and plantation follow up by <i>ProSpecieRara</i> - Contribution from <i>ProSpecieRara</i>     | 0            |
| Coordination of educational activities for primary schools with students - Contribution from <i>MCSN</i> | 0            |
| <b>Pumpkins' festival - October 27th and 28th 2017</b>                                                   | 0            |
| Gazebos - Contribution from <i>City of Lugano</i>                                                        | 0            |
| Tables and benches - Contribution from <i>City of Lugano</i>                                             | 0            |
| Pumpkins' festival flyer and printing - Contribution from <i>City of Lugano</i>                          | 0            |
| Material and animation for educational activities - Contribution from <i>MCSN</i>                        | 0            |
| Speakers' honoraria and expanses for conferences for students on October 27th                            | 1634         |
| Public project presentation on October 27th, speakers interventions were free                            | 0            |
| Projection of an extract of the film <i>Tomorrow</i> during the public presentation, Filmcoopi Zürich Ag | 150          |
| Presentation and collaboration by Meret Bissegger                                                        | 600          |
| Expenses for appetizers on October 27th and snacks on October 28th                                       | 1193.9       |
| Music, decoration, prices, presents and material for other activities                                    | 1750.82      |
| <b>Total expenses</b>                                                                                    | 10800.77     |
| <b>Total</b>                                                                                             | <b>10800</b> |
| Contribution of Liceo Lugano 1 to the pumpkin garden                                                     | -3900        |
| Contribution of Liceo Lugano 1 to the conferences for the students                                       | -1200        |
| Contribution of <i>Ticino Natural Sciences Society (STSN)</i>                                            | -500         |
| Contribution of the <i>Swiss Academy of Natural Sciences</i> thorough the <i>STSN</i>                    | -2000        |
| Contribution of <i>Capriasca Ambiente</i>                                                                | -1000        |
| Contribution of the <i>City of Lugano</i>                                                                | -3200        |
| <b>Total balance</b>                                                                                     | 0            |

# LE

Come sarebbe la nostra società se sfruttassimo ogni angolo libero di città per coltivare un orto? Con certezza non lo sappiamo, ma potrebbe essere una società di gente con tanto, ma tanto sale in zucca. Due giornate dedicate all'orto didattico dei ragazzi tonale di Lugano 1 e alla zucca, suo ortaggio principale.

[www.liceolugano.ch](http://www.liceolugano.ch) · [www.l](http://www.l)

# ZUCCHE

# IN

# CENTRO

# CITTÀ

Venerdì 27  
Liceo Lugano 1

15:30

Musica e attività a tema all'aperto.

18:30

Tutti all'orto didattico: gli studenti delle IV liceo scientifico BIC\*, insieme ai partner coinvolti, raccontano il progetto Sale in zucca ispirato dal film Domani. Segue una chiacchierata con Meret Bissegger, esperta di cucina naturale, promotrice del progetto. Le zucche nella Valle del Sole. Conclusione con stuzzico aperitivo fatto in casa.

Sabato 28  
Museo cantonale  
di storia naturale

10:00–12:00

13:30–15:30

Le zucche e diversità, attività per famiglie e animazioni.

16:00

Merenda e racconto a tema.

Palazzo  
dei congressi  
14:00–16:00

Zucca non è uguale a zucca!  
Degustazione di zucche con il laboratorio del gusto di SlowFoodTicino nell'ambito di ITicino Vegetariano, Meret Bissegger e gli studenti.

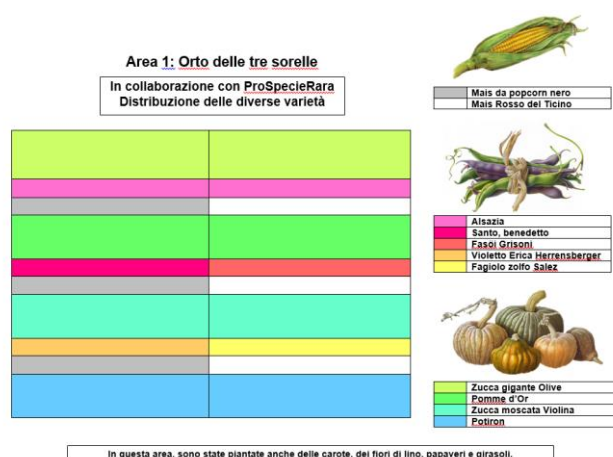
Il progetto Sale in zucca è stato seguito dalle docenti Manuela Vantini e Paola Manghera del Liceo cantonale di Lugano 1 in collaborazione con L'alberoteca, ProSpecieRara, Lugano al verde (Città di Lugano) e Le zucche della Valle del Sole. Con il supporto del Museo cantonale di storia naturale, della Società ticinese di scienze naturali e di Capriasca Ambiente.



# 27–28 10.2017.

## Attachment 3

### Plan and varieties of plants cultivated (area 1)<sup>33</sup>



### Ground growing pumpkin varieties and other cultivated plants (area 3)

|                                                  |  |                                                         |  |
|--------------------------------------------------|--|---------------------------------------------------------|--|
| Blu d'Ungheria<br><i>Cucurbita maxima</i>        |  | Moscata di provenza<br><i>C. moschata</i>               |  |
| Golden Hubbard<br><i>C. maxima</i>               |  | Olive<br><i>C. maxima</i>                               |  |
| Honeynut<br><i>C. moschata</i>                   |  | Tetsukabuto<br><i>C. pepo</i>                           |  |
| Jack o' lantern<br><i>C. pepo</i>                |  | Marina di Chioggia<br><i>C. moschata</i>                |  |
| Trombetta d'albenga<br><i>C. pepo</i>            |  | Coste gialle<br>Pro Specie Rara<br><i>Beta vulgaris</i> |  |
| Mais rosso<br>Pro Specie Rara<br><i>Zea mays</i> |  | Girasoli<br><i>Helianthus annuus</i>                    |  |
| Tagetes<br><i>Tagetes sp.</i>                    |  | Malva diverse varietà<br><i>Malva sp., Rosa alba</i>    |  |

### Climbing pumpkin varieties and other cultivated plants (area 4)

|                                                   |  |                                                       |  |                                          |  |
|---------------------------------------------------|--|-------------------------------------------------------|--|------------------------------------------|--|
| Blue Ballet<br><i>Cucurbita maxima</i>            |  | Violina<br><i>C. moschata</i>                         |  | Jack be little<br><i>C. pepo</i>         |  |
| Buttercup<br><i>C. maxima</i>                     |  | Zucca turbante<br><i>C. maxima</i>                    |  | Pomme d'or<br><i>C. pepo</i>             |  |
| Kikinda competition<br><i>Lagenaria siceraria</i> |  | Trombetta d'Albenga<br><i>C. pepo</i>                 |  | Red Kuri<br><i>C. maxima</i>             |  |
| Serpente vegetale<br><i>L. siceraria</i>          |  | Green Hokkaido<br><i>C. maxima</i>                    |  | Spaghetti vegetali<br><i>C. pepo</i>     |  |
| Zucche lagenaria<br><i>L. siceraria</i>           |  | Table queen<br><i>C. pepo</i>                         |  | Leguminosa<br><i>Pisum sativum</i>       |  |
| Nasturzio<br><i>Tropaeolum majus ador</i>         |  | Crisantemi commestibili<br><i>Glebionis coronaria</i> |  | Varietà di fagioli<br>di Pro Specie Rara |  |

## Attachment 4: Conferences on sustainable projects organized for nine 15<sup>th</sup> grade classes on October 27<sup>th</sup>

1) Città Studi— a sustainable Campus project: how to extend sustainability principles in a complex organization - Relator: prof. Riccardo Guidetti - Facoltà di Agraria - Università degli Studi di Milano. Città Studi Campus Sostenibile is a project promoted by Politecnico di Milano and by Università degli Studi di Milano to transform the university quarters in a campus and a city area aiming at being a role model for environmental sustainability also thanks to the contribution of researchers, students and local inhabitants. Seven classes followed this conference.

2) Debate on sustainable development themes

Activity coordinated by the economy and law teacher Giuseppe Rozner in collaboration with the geography teacher Paola Manghera. The debate was held by two classes following the *Jugend debattiert* project guidelines<sup>34</sup>.

3) ProFrutteti association - Relator: Muriel Hendrichs, ethno-botanic e coordinator of the ProFrutteti working group. Presentation of ProFrutteti, a working group of Capriasca Ambiente, with the aim to conserve and protect local old varieties of fruit trees. Two classes followed this presentation.

4) ProSpecieRara association - Relator: Lea Ferrari, agronomist and co-responsible for ProSpecieRara Svizzera italiana association. The relator explained the involvement of ProSpecieRara in the conservation of cultivated plants' genetic resources. New and old plants varieties have an important role in the development of a sustainable agriculture better adapted to environmental changes and global warming consequences. Three classes followed this presentation.

5) Officina del paesaggio - Relator: Sophie Ambroise, land planning-architect, Officina del Paesaggio director. Presentation and discussion on how we want to experience spaces like vegetable gardens, parks, squares, streets in the cities. Two classes followed this activity.

6) A local development aid project: apiculture in Burkina Faso with the aim to reduce environmental degradation and local population poverty - Relator: Zeno Boila, anthropologist. A Swiss NGO collaborated with the Anthropology Institute of Neuchâtel to elaborate an apiculture program in Burkina Faso. This project showed that some apparently simple aspects uncover economically, environmentally and socially complex realities. One class followed this presentation.

<sup>33</sup> Map and list prepared by a student.

<sup>34</sup> [www.jugenddebattiert.ch/de/projekt/debatte](http://www.jugenddebattiert.ch/de/projekt/debatte)



## Attachment 5: Photos



Area 1



Area 2



Area 3



Area 4







**Selected seeds**



**Hard workers**



**Power-up radio interviews**



**Special needs class students**



**Interviews for *Giardino di Albert***



**Pumpkin Festival**





**Students with a primary school class**



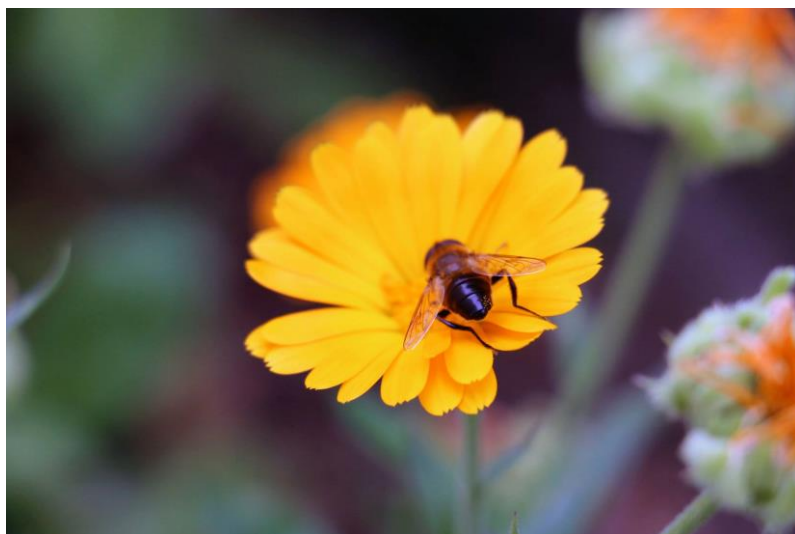
***SlowFood* pumpkin tasting**



**Family activities at the MCSN**



**Garden visit of a primary school class**



**One of our welcome visitors**

**Photos:** [Link to more photos](#)