ERASMUS – Mobility in Portugal – Presentations, workshops and Reflections

18th November 2019

Good Practices in Batalha – The use BlueBot

Blue Bot is a floor robot, very similar to Bee Bot, however the Blue Bot can be controlled from a tablet or computer using blue tooth. The tablet app features a host of programming challenges and problems for children to solve by constructing the correct programme.

The Blue Bot is more adapted to classes from Year 4 to 6 since they have OTPC, however they can still be used by earlier classes as commands can also be given by pressing buttons on the Blue Bot.

The Portugal team worked on an Ocean Mission where they tackled sea plastic pollution. The teacher introduced the game by reading a book called The Magic Bottle. The teacher made use of a mat with pictures of sea creatures, a bottle and things which can harm the sea creatures such as cotton buds and nets. The students had to programme the Blue Bot to reach the magic bottle which had a secret message which led them to the next clue.

Other similar games can be used in a maths lesson like shopping. Children had to programme the Blue Bot to choose things which did not exceeded the amount given.

Blue Bot was also used for storytelling to enhance sequencing. In another activity children used the Blue Bot as map reading.

In our Year 2 classes Bee Bot is commonly used during Maths, English and Maltese lessons. It is used for directions and angles, shapes, addition and subtraction and storytelling. In the upper primary years, we find the Pro Bot more convenient. It is in the form of a car and it allows students to input more detailed commands.

Students use logical reasoning to predict the behaviour of simple programmes. They make use of sequence, selection and repetition in programmes. They also understand what algorithms are.

19th November 2019

Presentation on better use of eTwinning Space

The following are points to follow for participating partners in the project. Further details can be communicated from the country's National Support Service or with one of its ambassadors. Malta's NSS is Dr.Roseanne Camilleri. However local support can be provided by the Digital Literacy Support group, namely Ms.Laura Scembri, HOD, who is also a member of this project.

In eTwinning space, one should include a new page in the front with a consent form. Parents' authorisation to publish photos because everyone can see the photos.

Every country needs to put activities done in country pages.

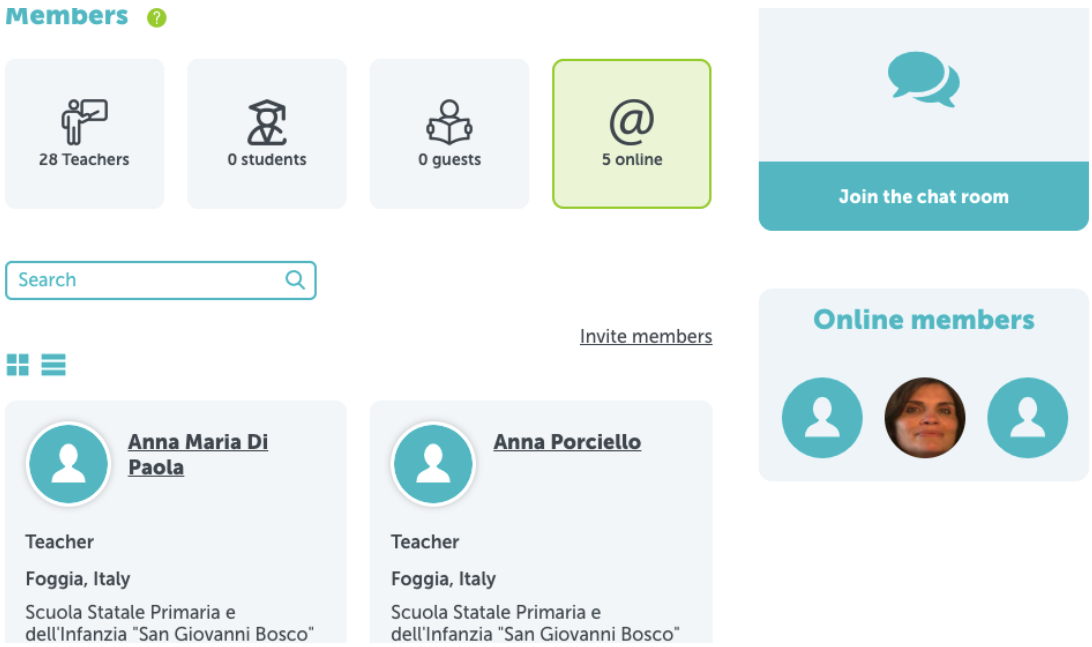
One has to look at the proposal of the project and for every item the school has to create a checklist whether it was done or not.
rtant pages that should be included:

1. Monitirisation of the project: Checking activities that are done.
2. Evaluation Instruments – How evaluation and reflection was done
3. IMPACT
4. Dissemination by. Countries. This is mandatory as this is the proof that the project was done. Examples include putting youtubes, padlet, newspapers, facebook and all other social network activities.

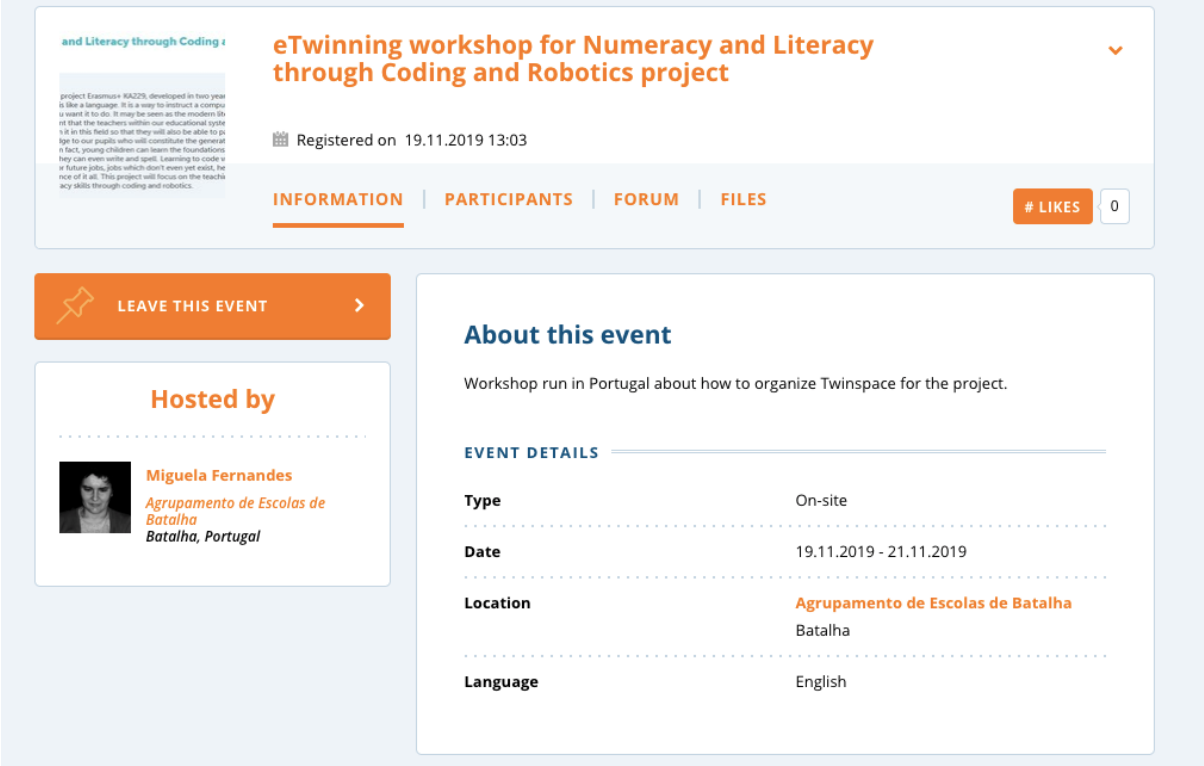
If a videoconference is done a new page has to be created. This has to be recorded and put there. If Skype is used, then screenshots are taken as audio cannot be recorded. Better still it is recommended that videoconference is be done in eTwinning live as this can be saved.

Intermediate report – Country should indicate to EUPA that we are working in twinspace. EUPA needs to verify our work and we have to invite them as guests so to verify the etwinning space. Guests can only be invited by admin.

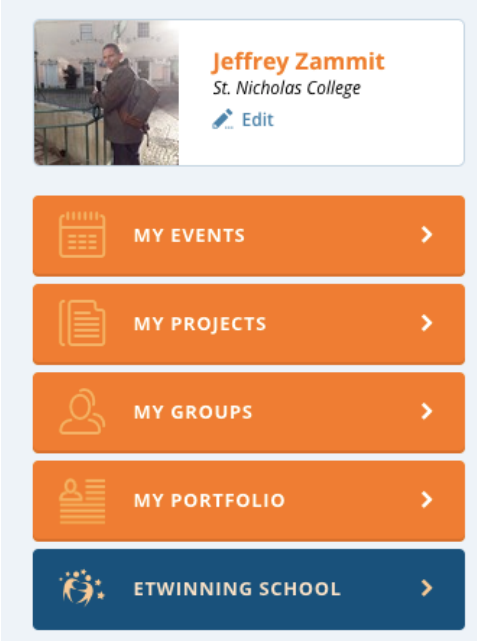
For every mobility done – the hosting country must create an event in the eTwinning live. This is a proof that work is being done. Moreover, the eTwinning space must be used to upload the work.



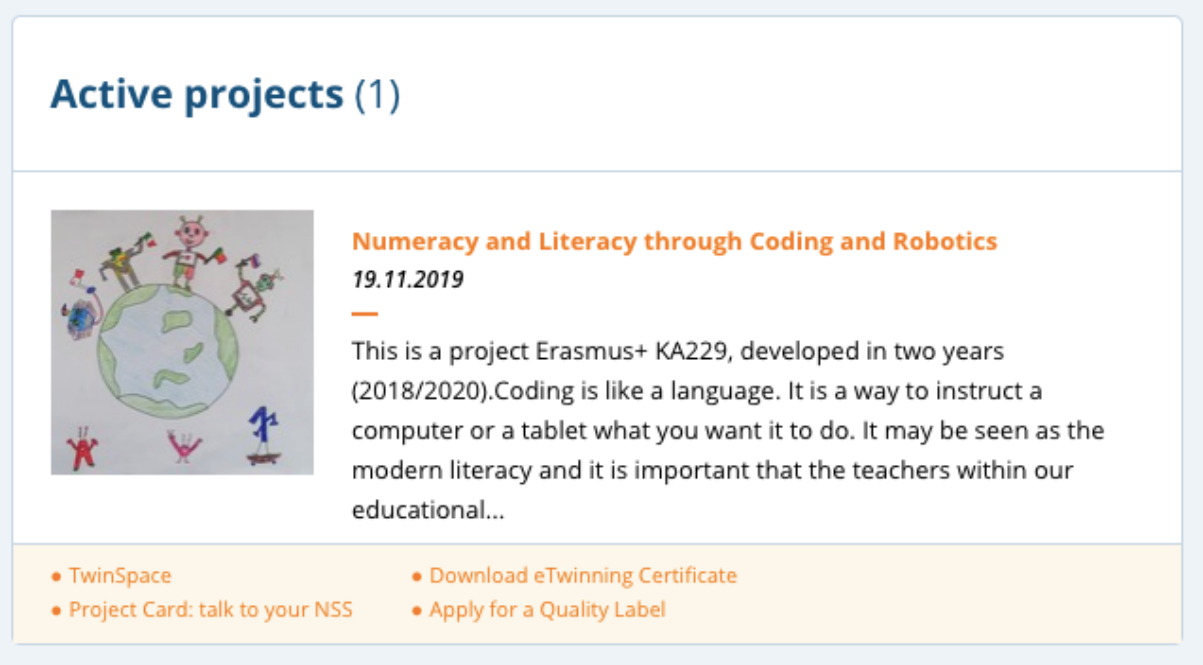
For instance the Portugal group, who hosted the mobility in Batalha, has created an event:



When the project is over in 2021, then members are encouraged to apply for both the **eTwinning Schools** …



… and for the **Quality Label**



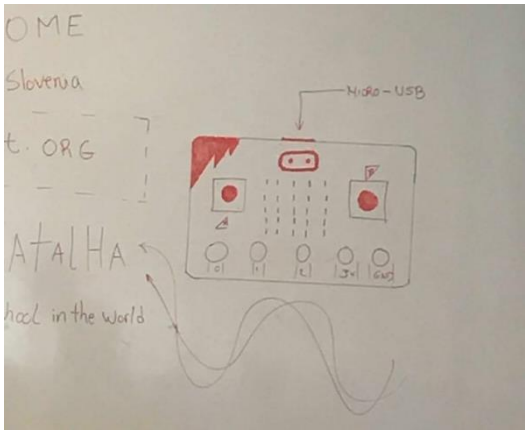
19th November 2019

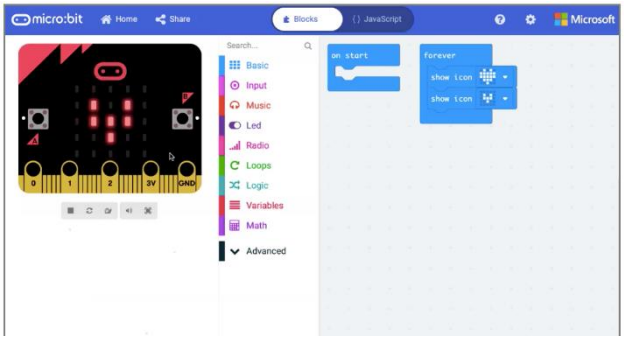
The use of MicroBit in Education

A group of secondary students gave a presentation on how they use Micro bit in their school. The BBC micro bit is a handheld, programmable micro-computer that can be used for all sorts of cool creations, from robots to musical instruments – the possibilities are endless. It is a pocket-sized codeable computer packed with features.

- Students motivated through hands on experiences by creating and designing
- Encourages engagement and creativity in today's young generation
- Prepares students for future jobs since technology is prominent. A helpful tool for students who aim to become coders, designers, artists, engineers and scientists
- Infuse computational thinking and problem solving across different subjects
- Promoting 21st century skills – collaboration, communication, innovation
- Relatively inexpensive tools

Then a hands-on practice session followed. We worked in pairs using the LED lights on the Micro Bit. We coded through the following website https://microbit.org/code/. The micro-bit has a display of 5x5 grid of LED lights. The bigger the number, the brighter the LED will be. We used our mobile's flashlight to work on this activity. In addition, we used the micro bit to show our message. Students can use their imagination to input a code and write their own message. In our case, we first shook the micro bit and then the message was shown. Other inputs available on this tool include temperature and compass headings. We believe that this tool can be used in our classrooms to help students enhance skills such as problem solving, collaboration and sharing of ideas. It can be used as a continuous project for various weeks.





19th November, 2019

Workshop 2 - Minecraft in Education

Student presenting this lesson explaining why Minecraft should be used as a pedagogical tool. How can it be useful? 21st century skills – learning by doing, the use of critical thinking. The game addresses these skills and can address them through gameplay and fun. It is a game which can be used transversally in many subjects.

Minecraft is a game where one can build with infinite resources. Minecraft has various modes such as survival, being creative with no limits and there is a mode where once a character dies, the game is finished.

This is a game where health and food must be kept in balance or else the game finishes. Minecraft emulates real world biomes like deserts, oceans, forests etc – 60 different in all.

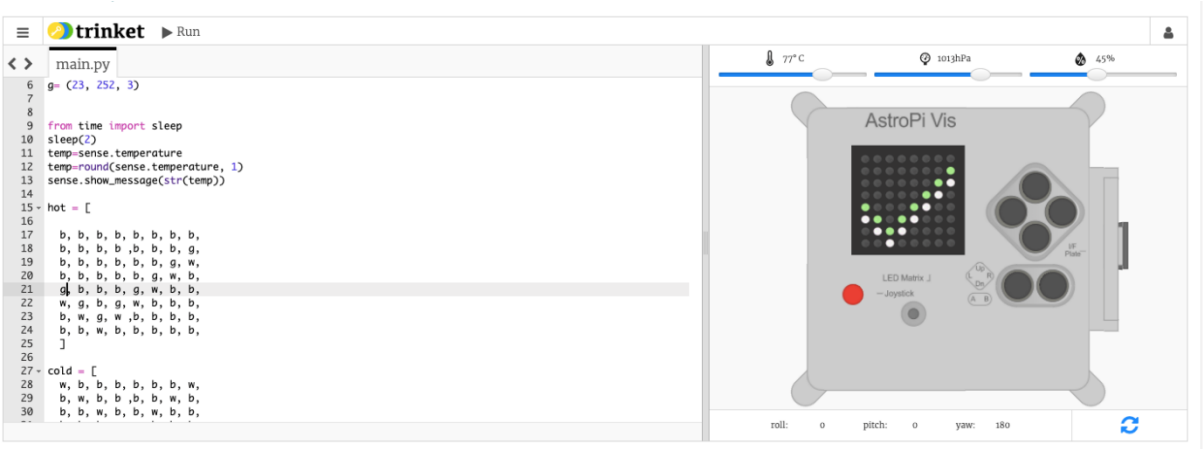
Minecraft is also renowned for its structures, monuments. The game also emulates places of extremes environments such as darkness, extreme heat.

The objective of the game: One has to get strong enough to fight the dragon.

The monastery in Bathala was planned. They have to measure proportionally and there is a lot of maths. This involves science like type of rock, acids/pollution; maths. Minecraft Edu is more controlled environment. Access to admin such as controlling students when go out of the world.

20th November, 2019

The use of Astro Pi

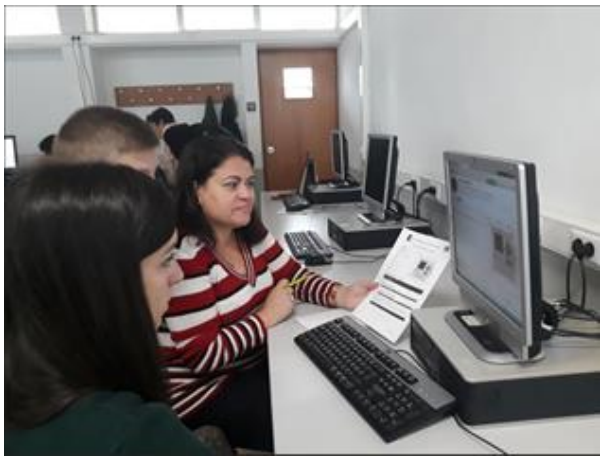


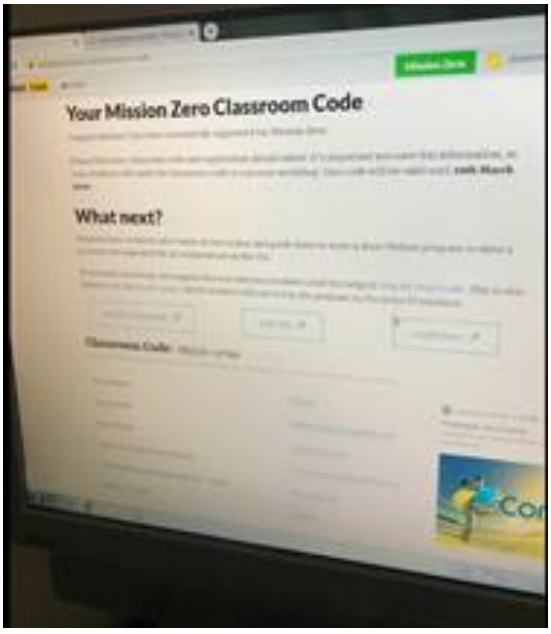
Secondary students gave a presentation on the use of Astro PI. As quoted from its site Astro Pi is a Raspberry Pi computer encased by a housing specially designed for conditions in space. It also has an add-on board called the Sense HAT, made specifically for the Astro Pi mission.

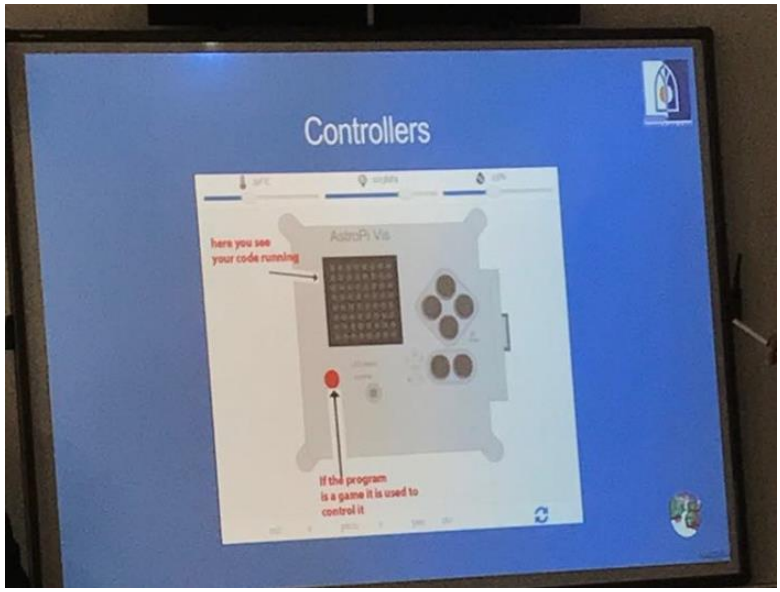
The Sense HAT has a joystick, an LED display, and sensors for recording temperature, humidity, pressure, and orientation.

It must be said that this device is already used within our college, Rabat Middle School students, under the guidance of Ms.Judith Smith HOD Science, have taken up the challenge with the International Space Station.

We found that the Astro Pi challenge is a bit challenging for early years students and would be more suitable for the senior section in our Primary school with clear guided instructions by the teacher. Students will benefit by having hands on experience on coding, be creative and conduct scientific investigation in space by writing computer programmes. Astro Pi can be accessed from an internet website https://trinket.io/mission-zero/register. Teachers must be well prepared and instructions should be specific and to the point.





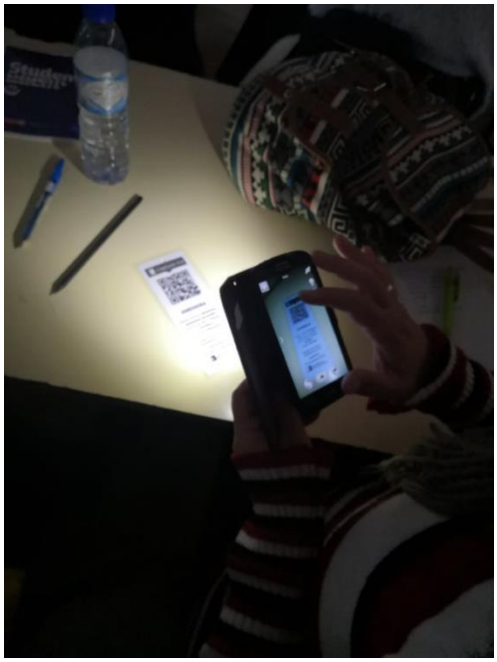


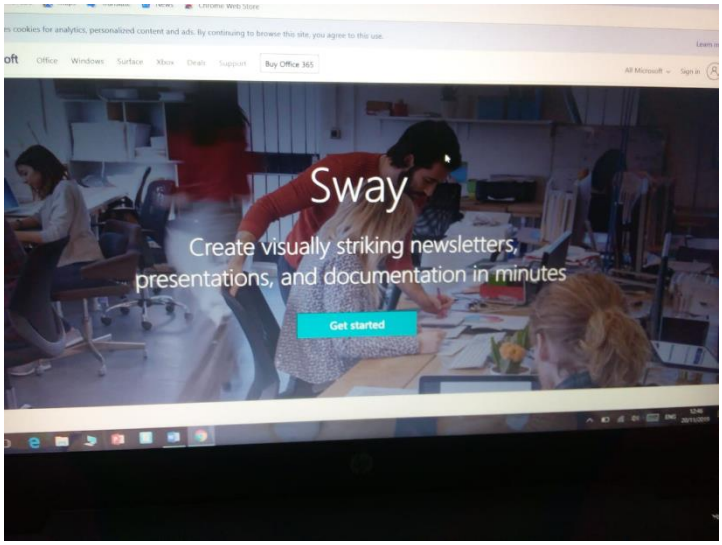
QR codes in schools

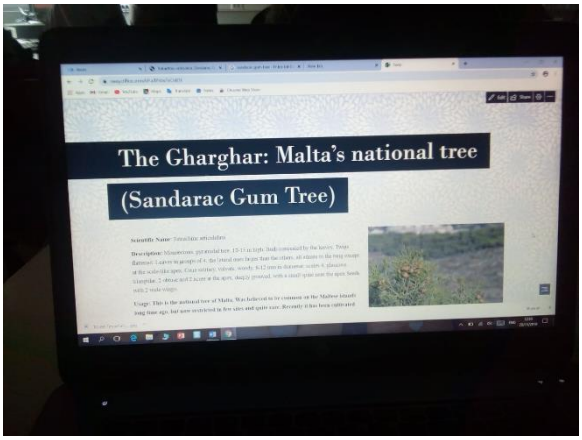
The teacher introduced this area by presenting the following link Bit.ly/etwTAu – project on trees. They produced a tag with a QR code – name of the tree and some information. The project involved the research of the trees, pictures, audio both Portuguese and English as this was part of an eTwinning project. There was also a contest on the logo. The project helped to increase the number of trees in the school.

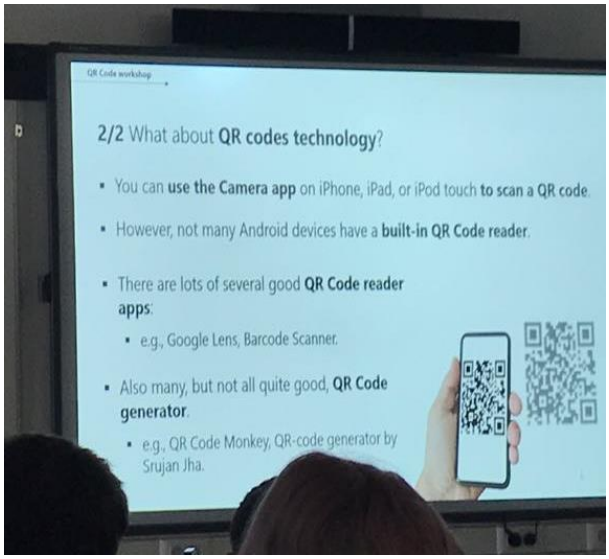
The teacher said that QR codes are important anywhere in the world from advertising to supermarkets but the **Q**uick **R**esponse codes can be easily used in school and education. They can be used by Android phones require a QR scanner application while Apple smartphones can use their camera.

The Teacher built up a quick page on the national tree of Portugal. He used Microsoft Sway (Bit.ly/aboutsway).After the information was ready, the teacher generated a unique code through this website: https://www.qrcode-monkey.com/. In our school, we used QR codes during a Health and Safety session. In the upper primary years, we also make use of QR codes with students' tablets.









21st November, 2019

The use of 3D Printing

Secondary students explained how 3D shapes can be drawn on tinkercad.com. During the activity, we had the opportunity to view the 3D design in action. We explored the Tinkercad application by trying to design an object in pairs. Currently, we do not have access to the 3D printer in primary schools. However, it is available at Rabat middle-school. Tinkercad might be used by the upper primary students where they design their project and then print them at the secondary school. This will promote collaboration between the two schools. In addition, it will help primary students to familiarize themselves with the concept, should they aim to choose Design and Technology in their secondary years. All in all, 3D printing equips students with skills required for future jobs including engineers and designers. A disadvantage of this tool is related to the size of the objects. Until now, the size of the objects created with 3D printers is very limited.