**STEM - Summer Camp 2015**

**Mathematics Project - Description**

**Liana Esternyuk - Zsuzsa Kozmane-Fejes**

**Borough of Manhattan Community College - Mercy College**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Goal:** Plan a new or improve a current park in New York City. Make it convenient for people of different age categories. Think about modern infrastructure, design.

Since the project can be time consuming, start to brainstorm how to organize the effective work. You may want to divide the Math team in groups. For example: architects, park designers, finansists, artists, etc. In addition, you can make a subdivision based on the particular object.

**Requirements:** The park has to include: walkways, a playground, restrooms, benches, grass lawn, flowers and trees.

**\*Optional:** You can add : water fountains, a pond, a picnic area, food stations, lights, a pool, a tennis/volleyball court etc.

**Steps:**

1. Name the park.
2. Choose: a) location, b) shape and c) actual dimensions of the park.
3. Plan the park with all the given requirements.
4. Draw a 2D model of the park (**Hint:** You will use the poster for the presentation. Select the scale for your drawings and use a proportional relationship between actual dimensions and dimensions of drawings).
5. Plan how much material will be required for every object. Use area or volume formulas as needed.
6. Search prices of the materials. Make a pricelist.
7. Calculate the cost of each object including taxes, delivery costs and probably labor.
8. Form the total budget for constructing a new/ remodeling old park.

***Remember***:

* All drawings and calculations have to be presented on the PowePoint. Think, how would you organize your data.
* During the park trip: be ready to observe, take pictures, perform measurements and record them.