**Project Title:** West Lake’s Science Court  
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**Class:** UEN CMaP 2010

<table>
<thead>
<tr>
<th>Project Description</th>
<th>This project will make a map and list of the items in West Lake’s Science Court in preparation for the renovation and refurbishing of this courtyard. Digital pictures will be taken to document the items.</th>
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<tbody>
<tr>
<td>Community Issue or Problem Selected -How project evolved?</td>
<td>West Lake Junior High has a Science Court that the science rooms are build around. It has been neglected for years. There is a pond, turtle, trees, flowers, etc. in the courtyard. The pond becomes overgrown with algae in the summer because of the heat and lack of water circulation. The pond needs to have a waterfall, plants, and other filtering methods established. The rest of the courtyard needs to be groomed so that the four main habitats of Utah are represented. These improvements would help it become more of an outdoor science classroom.</td>
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</table>
| Community Partner(s) | Earth Systems (Aquaculture experts)  
Western Gardens  
Lowe’s (pond equipment, plants) |
| Project Objectives | To itemize the items in the courtyard so as to know what is there before starting changes |
| Utah Core Standards/Objectives | 8th grade :  
Obj 2-2c. Test environment factors that impact plants.  
Obj 2-2d. How scientists investigate ecosystems.  
Obj 2-3a. How humans change capacity in an environment |
| Essential Question(s) -Spatial Issue | How do abiotic and biotic factors contribute to the health of an ecosystem?  
Where are the biotic factors of the science courtyard located?  
Where are the abiotic factors of the science courtyard located? |
| Assessments (rubrics, scoring guides) | Assessment will be on the thoroughness of the survey. Neatness and accuracy of the diagram and chart of the courtyard will be assessed. The correct identification of the plants will be assessed using information from the expert business partners. |
| Project Products | A list of the items separated into biotic and abiotic factors or the courtyard. |
Pictures will be saved into the computer of the items found in the courtyard.

**Project Timeline (include a step by step Procedures)**

1st: Consult with Earth Systems as to the possibilities with the courtyard.
2nd: Plot out a grid of the courtyard.
3rd: Assign teams to the different sections of the courtyard.
4th: Record on the chart and grid what is found in that section.
5th: Take pictures of what is in each section.

**Resources Needed**

- Two charts to record on: abiotic and biotic
- Pencils, classification key for trees, plants, and flowers
- Measuring tapes
- Digital cameras

**Skills Required**

- Ability to determine accurate measurements.
- Ability to determine plant identification from a dichotomous key.
- Ability to keep accurate and complete records.
- Knowledge of camera and downloading to the computer program

**Project Team Member Roles**

**Teacher(s):** To provide guidance and direction for students while gathering the information

**Students:** To inventory and record the items of the courtyard on the chart and to plot measurements and location on a map of the courtyard.

**Partner(s):** To provide expert advice and direction about how to achieve the new objectives for the courtyard.

**Celebration/Presentation**

Will present information to the administration and school community council to demonstrate what is planned for the renovation and redesign of the science courtyard.

**Project Evaluation**

The evaluation of the project will be correlating the information and conferring with Earth Systems to what will be best direction to go with the courtyard for classroom use.

**Project Bibliography**

- Aquaculture material
- Classification keys for plants and tree

**Plans for Future CMaP Activities**

The students could use the GIS unit to record the trees and bushes found on the West Lake Junior High school grounds.