

## Lesson Plan: Biology, Biomes, Ecology, Travel, Planning

*by Hyungjoon Jin*

<b>Tool(s) used:</b>	<ul style="list-style-type: none"> <li>• Systems Mapping</li> </ul>
<b>Purpose of using tool:</b>	<ul style="list-style-type: none"> <li>• Generating Questions</li> <li>• Synthesizing Thinking</li> <li>• Guiding Discussion</li> </ul> <p><b>Overview:</b> The students are planning a vacation package for a trip to an assigned biome, as a part of the life science population and ecosystems unit. In order to get them to think about the inter-relatedness of various components that go into planning a trip to various parts of the world, the students made a systems map to reflect on the complexities of planning a trip involving multiple destinations.</p>
<b>Context of lesson/case study:</b>	Science Classroom
<b>Participants (# and description):</b>	7th grade students in groups of 3-4
<b>Topic, Theme, or Key Understanding of unit/project:</b>	Biology, Biomes, Ecology, Travel, Planning
<b>Length of unit/project:</b>	2 weeks (5 periods of 75 minute blocks)
<b>Resources/materials &amp; setting required:</b>	<a href="https://www.biologycorner.com/projects/biome.html">https://www.biologycorner.com/projects/biome.html</a>

### Lesson Plan/Description of the Project:

The students were learning about various biomes around the world. To achieve this, students were first divided into groups based on their interest and assigned a biome (tundra, forest, aquatic, grassland, or desert). The groups researched various places in the world with these biomes and chose specific locations they wanted to include in the project. The objective was to create a vacation package that includes information on the floras, faunas, the specific adaptations of the organisms, geographical features, and various activities that can be done at these places. The project involved creating one digital component (digital model, poster, brochure, presentation, movie etc.) and one physical component (model, poster, brochure etc.), that can support as visual representations and information about their vacation packages. A fact sheet about their biomes or chosen locations was also turned in. The systems mapping was used for the students to consider the various items needed to be addressed in planning a trip. Without explicit instructions, the students came up with many of the components, such as lodging, transportation, safety issues, environmental impact, socioeconomic statuses of the areas, and many more factors to consider in planning a vacation package.

### Reflection

#### Plusses:

Since the majority of the students have never planned a vacation before, many failed to see the importance of arranging some of the details of the trip, such as lodging, transportation, and food. Many also did not consider factors such as weather, the best time to visit, and activities to do. Other factors such as safety issues or socioeconomic and cultural influences were also often overlooked. When told to come up with a vacation package without being explicitly told to address these issues, the students had a hard time in the direction of their project. To help them take into consideration the inter-relatedness of all these components,

the systems mapping helped the students be able to better plan the trips and give thought to potential issues they would need to address when putting together a vacation package.

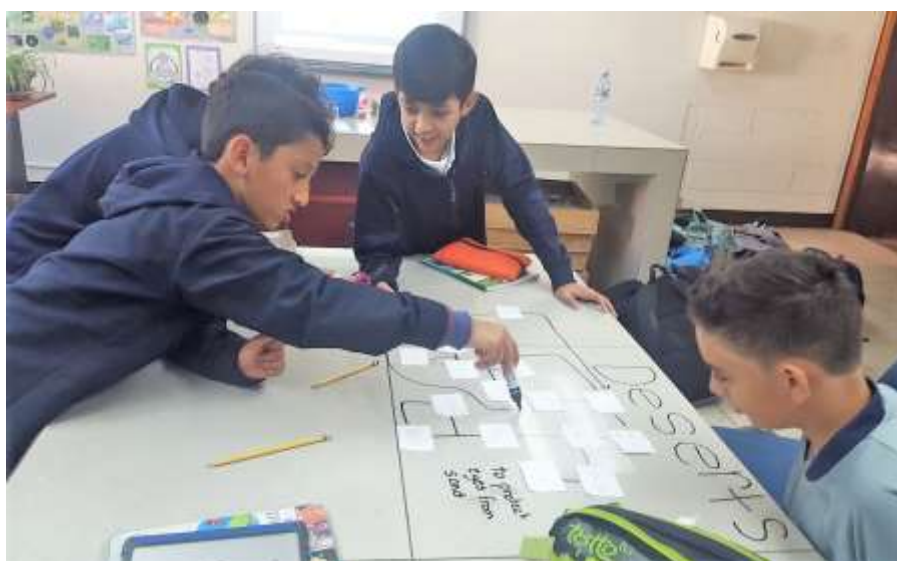
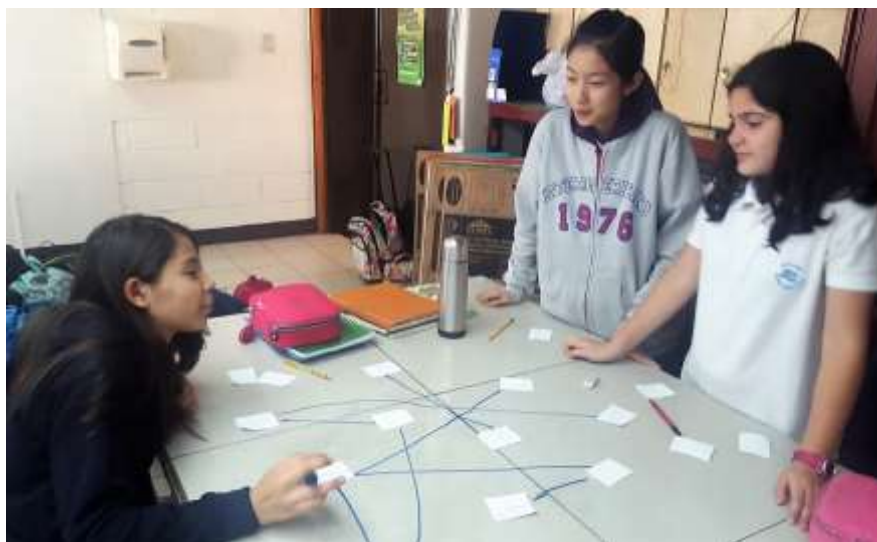
**Challenges:**

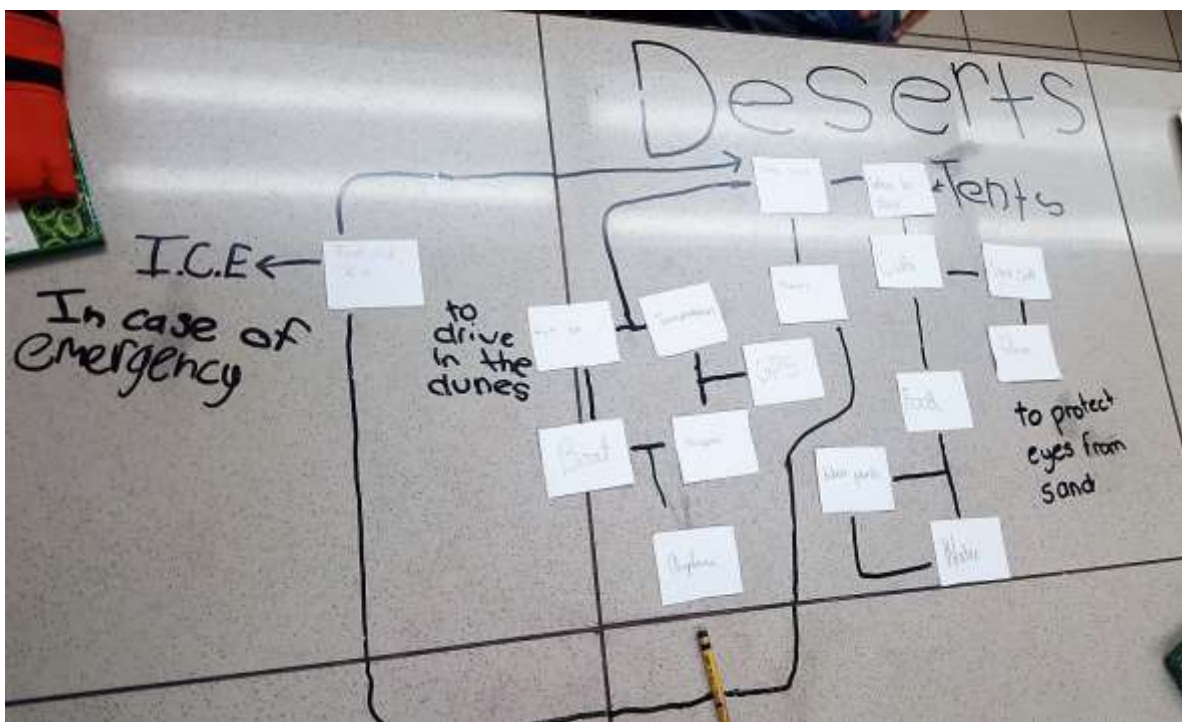
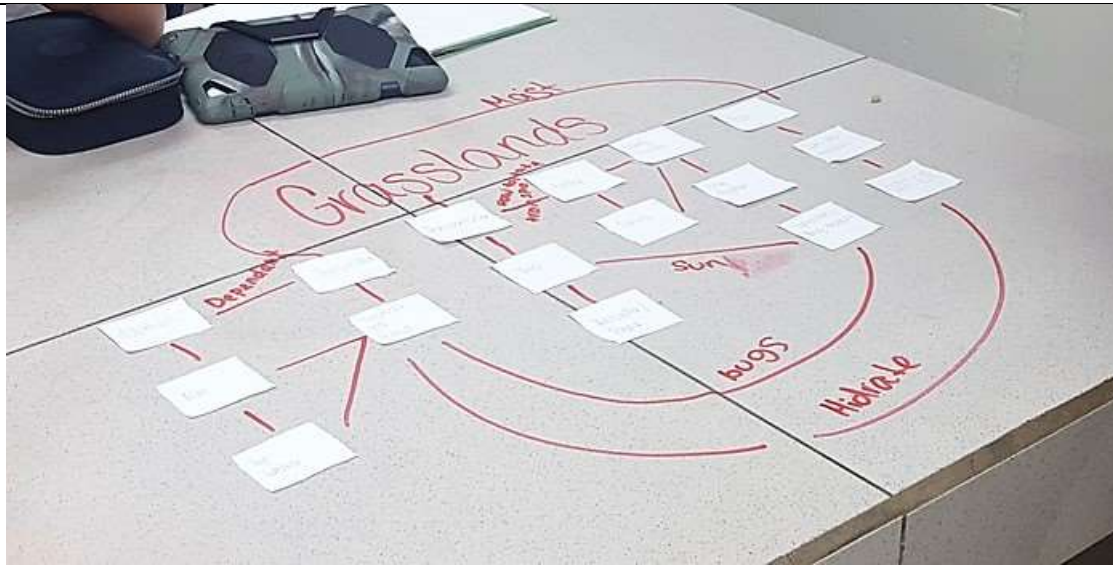
Although the purpose of the project is to learn about the information on the various biomes, I felt it was important to systemically approach this project to include various factors about travel, which is a huge interest for many of the students. In this specific lesson, the systems mapping was introduced after the students have come up with the itinerary of their vacation package. Even though the systems mapping helped the students address many of the details that would've been overlooked otherwise, I wonder how things would have panned out differently if the systems mapping were introduced to the students before they found out that they will be designing a vacation package. In the future, I will give minimal details about the project and allow the students to map out the biomes or specific locations before giving them the details of the project. My thoughts are that by introducing the systems mapping few days into the project, maybe their creativity and ingenuity were already limited to the confinements of the project requirements.

**Suggestions for other practitioners and educators:**

My classroom has lab benches that the students can write on with dry erase markers. They cut an unlined, blank piece of paper in 16 pieces (not limited to) and wrote every component or issue they felt were relevant to the project and used the lab benches to arrange and make the connections using transition words. This can be done on posters or even digitally, based on available materials and technology.

**Evidence and Resource:**





Lesson plan submitted by: Hyungjoon Jin, 2017, while serving as Teacher at Colegio Interamericano de Guatemala