**Fall 2012**

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| **Instruction takes places in:** | High School World History Classroom |
| **Title:** | Mission: Sustainability |
| **Level/Subject Area:** | 9th and 10th grade World History |
| ***Learner Profile*  Number of Learners:** | 32 |
| **Number of Learners with  Special Needs:** | N/A |
| **Area of Specialties:** | No special needs at this time, however I will look to the principles of Universal Design for Learning to accommodate student’s various learning styles. |
| **Performance Objectives:** | Curriculum Standards:   * Analyze geographic problems and changes over time through the appropriate use of maps and other graphic representations. * Explain how the geographic characteristics of a place affect the economics and culture. * Describe how the earth’s internal changes and external changes influence the character of places. * Explain how ideas, customs and innovations are spread through cultural diffusion. * Predict how a change in an environmental factor can affect an ecosystem. * Analyze how geographic knowledge, skills and perspectives are used to solve contemporary problems.   Technology Standards:   * Develop cultural understanding and global awareness by engaging learners of other cultures. * Apply digital tools to process data and report results * Exhibit leadership for digital citizenship |
| **Curricular Connections: (NETS/Local or National Standards/ Professional Standards)** | **Arizona Social Studies Standards (Strand 2 – World History)**  <http://www.azed.gov/standards-practices/social-studies-standard/>  Concepts:   * The World in Spatial Terms * Places and Regions * Physical Systems * Human Systems * Environment and Society * Geographic Applications   **National Educational Technology Standards (NETS)** <http://www.iste.org/standards/nets-for-students>  Concepts:   * Communication and Collaboration * Research and Information Fluency * Digital Citizenship |
| **Technology Connections:** | Students will be using webpages to explore content, create artifacts and a LMS (Canvas) to take quizzes and access group assignments. The use of Google Drive to monitor and plot progress and collaborate on group assignments. |
| **Materials:** | A computer with a high-speed Internet connection and Google account. A printer will be needed to print out assignments. |
| **Related URLs:** | <http://lt.umn.edu/earthducation/> - main website  <http://lt.umn.edu/environetwork/> - network website |
| **Teaching Strategies:** | **Whole Group:** To start the game, the teacher will introduce the theme, Mission: Sustainability with a presentation on the objectives of the game. The whole class will review and become familiar the website, Earthducation and the game missions.  The game will be a team competition. Teams will consist of 4 players. The teams will form and create a team name and code names for each individual.  All groups will be watching the progress of the game play via Google Drive. Once each mission is completed the top-preforming group will receive a prize. There are three missions, so there are 3 prizes available. If possible there might be a prize for the top-scoring individual. The prizes will be gift cards to local business. |
| **Small Group:** The teams will complete 3 missions. For each mission, there are two assignments with three levels and a scorecard to rate their fellow team players. Teams will complete assignments to gain XP (experience) and level to the next mission. Refer to the table at the end of this document. |
| **Cooperative Group:** Refer to Small Group. |
| **Individual:** For each mission assignment there are individual ways to gain XP. In each assignment, there will be a quiz in the LMS. These will be scored as individuals, but the team can chose to work together on these quizzes. Each quiz will be five questions from a test bank of 25. |
| **Classroom Management:** | **Technology Management:** There will be a need of one computer per team with a connection to a printer to complete assignments. The individual tasks can be completed on a computer outside of class either at home or during tutorial. |
| **Instructional Groups:** The teams will meet in class at one computer to work on the team assignments. The learning will scaffold as the team completes each level in the assignment. As an example: Mission One consists of the World in Spatial Terms and Places and Regions. The first assignment is to **Plot the Route** of the Earthducation Team. There are three levels to complete of XP.   * Mission 1, Assignment 1, Level 1 is to plot the trip on a static map for 15 XP * Level 2 is to plot the trip on a 3D Dynamic Map (Google Earth) for 25 XP * Level 3 is to create a map with visuals from each region they team will visit for 35 XP. * This will give a team 75 XP total to level to Assignment 2. * There is also an Individual Task, which is a quiz in the LMS. This can be completed as group, but all team members must take the quiz for an individual score. Each player will earn 25 XP, but this will only be counted as individual XP, not as the team XP. * Refer to the table at the end of this document. |
| **Assessment:** | An assessment will be built into each of the group assignments. The teacher will make the decision on awarding XP based on a guiding rubric given to the students at the beginning of the assignment. Groups will continue to repeat the assignment until they are awarded all the XP. Partial XP will not be accepted for any assignment.  There will also be individual quizzes automatically graded by the LMS. Once the student achieves 100% on the quiz, the student will be awarded 25 XP. The student can take the quiz unlimited number times. Again, no partial credit will be given to student who take the quiz and do not score 100%.  Below is the breakdown:  Each assignment is worth 75 XP for the group and each mission has 2 assignments for a total of 150 XP for the group. Also 50 XP are available for the individual in each mission. For a total of 150 XP for the group and 50 XP for the individual. So an individual can earn 450 XP total.  The final “grade” is based on XP.  600 – 550 = A  549 – 500 = B  499 – 450 = C  449 – 400 = D  399 and below = F  So if an individual only works on the group assignment, he or she will only earn 450 XP and get a “C”. |

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| Mission: Sustainability | | | | | | | |
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|  |  | Title | Level | Level | Level | Total  Group | Individual  Task |
| **Mission 1** |  | **Getting There** | 1 | 2 | 3 |  | Quiz in LMS |
| Assignment 1 |  | Plot the Route | 15 XP | 25 XP | 35 XP | =75 XP | 25 XP |
| Assignment 2 |  | Geographic  Characteristics | 15 XP | 25 XP | 35 XP | =75 XP | 25 XP |
| Group - 150 XP required to Level to Mission 2  Individual - 50 XP available, not required to Level to Mission 2 | | | | | | | |
|  |  | Title | Level | Level | Level | Total  Group | Individual  Task |
| **Mission 2** |  | **The Investigation** | 1 | 2 | 3 |  | Quiz in LMS |
| Assignment 1 |  | Earth Changes | 15 XP | 25 XP | 35 XP | =75 XP | 25 XP |
| Assignment 2 |  | Cultural Diffusion | 15 XP | 25 XP | 35 XP | =75 XP | 25 XP |
| Group - 300 XP required to Level to Mission 3  Individual - 50 XP available, not required to Level to Mission 3 | | | | | | | |
|  |  | Title | Level | Level | Level | Total  Group | Individual  Task |
| **Mission 3** |  | **Solutions** | 1 | 2 | 3 |  | Quiz in LMS |
| Assignment 1 |  | Ecosystem | 15 XP | 25 XP | 35 XP | =75 XP | 25 XP |
| Assignment 2 |  | Contemporary Problems | 15 XP | 25 XP | 35 XP | =75 XP | 25 XP |
| Group - 450 XP required to End the Mission  Individual - 50 XP available, not required to End the Mission | | | | | | | |

**a. Rationale for why this game was chosen for this curriculum, especially over other options if any was relevant.**

I found this adventure learning website at a conference I attended in the fall of 2012. In talking to the developers, I found they have lessons and resources for teachers, but they do not have a game constructed for exploration and learning. I thought by creating a game around the material students might be more engaged and motived to explore not only this site, but also other sites to learn about sustainability, culture and the environment.

I decided to focus on secondary education, because most of the resources on this site are targeted to the K – 8 students and teachers. Both of my son’s have taken World History in 9th grades and I thought this would be an informative site for this level class, but found the lessons to be rather typical and well…boring. I thought the idea of building a game around already innovative adventure learning might be more engaging for students at this level.

**b. Descriptions of at least two hypothetical learning scenarios. While creating these scenarios think about what it would be like to have *your* students using this game or simulation in a real-world situation.**

I am going to create this game and make it available to the Earthducation team. I would like to plot this game in a World History class at the local high school, but I have contacted the teacher and received no interest as of this writing.

**Scenario One**

To administer the game set aside a six-week period, for the 9th grade World History class to go to the computer lab for one 90-minute session per week. Students will be placed into teams of four. Most classes have 36 – 40 students, so there will be about nine to ten teams for each class.

There are 3 missions with 2 assignments per mission. It will be goal of each class session for the teams to complete an assignment and turn it in from the teacher to evaluate. The individual quizzes can be completed either in the computer lab or at home.

So that students have the chance to learn through failure, the first two-week will be working on both assignment 1 & 2 to achieve enough XP to level to Mission 2. Below is a table of how the game might progress.

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| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| Introduce  The game  Complete:  Mission 1  Assign. 1  *Teacher Review and award XP by next session.* | Re-do  Assign. 1,  if needed.  Complete:  Mission 1  Assign. 2  *Teacher Review and award XP by next session.* | Re-do  any work,  if needed.  Complete:  Mission 2  Assign. 1  *Teacher Review and award XP by next session.* | Re-do  any work,  if needed.  Complete:  Mission 2  Assign. 2  *Teacher Review and award XP by next session.* | Re-do  any work,  if needed.  Complete:  Mission 3  Assign. 1  *Teacher Review and award XP by next session.* | Re-do  any work,  if needed.  Complete:  Mission 3  Assign. 2  *Teacher Review and announce the winners by next class.* |

**Scenario Two**

This game could be played individually as well. All of the missions and assignments can be done alone and turned in the teacher for individual reviews. Students would come into the computer lab and complete assignments at their own pace throughout the semester. The teacher could have a leader board either in class or in Google Docs showing the progress of individuals throughout the gameplay time period. There would be winners awarded as student complete the game.

I personally like the group play better, but either one would be effective for learning the content.