Environmental Systems and Societies

*Biodiversity and Conservation Project*

**Learning goal:** I want you to gain a mastery understanding of a key concept related to biodiversity or conservation. I want you to share that understanding with the rest of the class so they will understand the concept as well.

**Success criteria:** You will create a project and share it with the class. To show you have a mastery of the concept you will put it into a format designed for elementary aged children. Elementary aged children will judge the accessibility of the ideas.

**Choices of projects:** You (by you I mean you and up to three of your dearest friends) have four choices to choose from. The important thing is your project must meet the following criteria:

* Must be child appropriate (for a ten year old)
* A ten year old must be able to understand the concept you are teaching. I am going to have children send their take on the concepts back to us.

The choices are:

1. A puppet show – we will video tape you performing it to the class to show the kids.
2. A children’s book (pop-up anyone?) – you will read it to our class.
3. A kids song – we will make a video of you performing it for the class.
4. A game for the kids to play – we will have the class play it.

**Specifics for each project:**

* Puppet show:
	+ Must be between 4-6 minutes in length.
* Children’s book:
	+ Must be between 10-20 pages in length.
* Kid’s song:
	+ Must be between 2-3 minutes in length.
* Game:
	+ Must be able to be played in 15 minutes.

**BONUS!!!!** I will give the project that is voted the best out of the three classes 20 bonus points, I will give the project voted second best 15 bonus points and I will give the project voted third best 10 bonus points.

**How will you be graded:**

* 30 points for correctly explaining the concept.
* 30 points for creativity—is it entertaining.
* 30 points for being understood by the children.
* 10 points for presenting to the class – do you giggle the whole way through or do you try to perform it well.

**Topics to be covered:** We will draw numbers for topics for each class. These topics correspond to the key points covered in the textbook. If you don’t like the number you drew you may convince a different group to trade with you, but there are to be no repeats. The topics are:

1. The mechanism for speciation is isolation of populations and natural selection.
2. Biodiversity is lost through natural hazards, habitat degradation, agriculture, introduction of non-native species, pollution, over hunting and over harvesting.
3. Tropical rainforest are the biome with the most biodiversity and they are under threat.
4. Species and habitats should be preserved for many reasons, based on economic, commercial, ethical and aesthetic grounds.
5. Both governmental and non-governmental organizations work to preserve biodiversity and protect ecosystems. They act in different ways but have similar goals.
6. Species based conservation has both strengths and weaknesses.

If all of the above ones are taken and we need additional topics they are:

1. Criteria are used to design protected areas based on the principles of island biogeography.
2. We don’t know how many species are alive on Earth but we do know many are becoming extinct or endangered.
3. Some species are more prone to extinction than others.
4. Movement of the Earth’s plates over geological time has increased biodiversity.

**When are the projects due:**

The projects will be presented on Friday, February 7th, 2014. You will have three class periods to work on the projects. We will still do quizzes over the videos, but the rest of this week and next week will be yours to work on the projects.