Names:_____

Honors Bio Project – Colorado or World Ecosystems

Honors BIO **DUE:**

➢ PART 1: Your Group's Mini-Lesson:		
Requirement:	**Details:**	**Notes:**
1) THE LESSON: Your group's "expert" topic (section from text) **- A visual presentation method for teaching this material in simple way! (slides, Canva, etc)** **- A "note guide" for students to complete while viewing your project.** **- You and your group are "experts". You should be able to answer questions.**	- For this section, you are creating a **"mini-lesson"** that with teach the basics of the text section your group was assigned. - This information DOES NOT need be applied to your specific ecosystem, but it certainly can. - The notes ***template (fill in the blank, note-catcher, chart, etc)*** you create must be compatible to be viewed online (even if that means taking a picture and uploading it). **- Note template or plan shared at least one day prior to due date.**	**My groups expert text section:** _____ **DUE DATE 5/7** **(This section should be completed prior to part 2)**
➢ **PART 2: Your Group's Ecosystem Research (All items listed below must be APPLIED to your assigned ecosystem) Your visual aid is here SEPARATE from your expert topics.**		
- Ch. 34		
2) A description of your ecosystem's climate (temperature trends, precipitation, etc.) and biome. Climatogram included.	- Include at least 3 evolutionary adaptations to organisms specific to your ecosystem. (***Evolution connection***) - Descriptions of climate this influences the ecosystem (both biotic and abiotic factors)	**My Group's Ecosystem:** _____
- Ch. 36		
3) Dispersion patterns **- First, learn the basics of each pattern then, match it with a species in your ecosystem.**	- A population that is clumped - A population that is uniform - A population that is random	
4) Survivorship curves	- One example per survivorship curve type from an organism (w/explanation)	
5) Population growth	- A REAL factor in YOUR ecosystem that is **density dependent limiting** and one that can be **density independent**. Explain how that impacts population and why they are density dependent/independent	
Ch. 37		
6) Food web of your organisms **- Visual representation of the interconnected relationships between your organisms.**	- Must include at least 24 organisms (organisms can be included ***outside*** your list) - Each organism must have a minimum of 4 energy connections (2 in, 2 out). There are some	

	exceptions to this (ie: apex predators or producers) - There must be some **sort of pattern for trophic levels**. (coloration, organization on visual aid, etc)	
7) Food chain	- **Extract** a food chain from your web, showing the available percent of energy for each TROPHIC representation. (5 levels minimum – show energy % for each level)	
8) Community relationships	- Specific examples of all 6 (**add commensalism**) community relationships between populations. All with explanations.	
9) Keystone species	- Specific example of keystone species in your ecosystem and why it is a keystone species.	
10) Invasive species	- Example and how it is affecting your ecosystem	
Other		
11) Human impact	- How have humans impacted your ecosystem? Be specific!	
12) Biology connection	- At least **TWO** connections to a topic we have covered this year. Please emphasize/highlight each topic and explain! (They must be specific to your ecosystem)	

1) HOW DO WE PRESENT THIS INFORMATION?

- You can really create ANY form of visual presentation. It can be a **POSTER, 3-D REPRESENTATION, VIDEO, POWERPOINT, PREZI, INTERACTIVE, etc. OR ANY COMBINATION OF THE PREVIOUS.**

2) ARE WE ACTUALLY PRESENTING?

- No, it will be a walk through. The last two days we will view each other's projects. While viewing, groups will take QUICK note sessions from your lesson. This will ensure further understanding of the topics.

3) DO WE NEED TO CITE OUR SOURCES?

- ABSOLUTELY! We will cover the basics of how to cite and view resources on easy ways to do this. This will happen while we are in the library on our first day of research**. PLEASE DO NOT FORGOT TO SAVE ALL RESOURCES USED.**

4) GRADING. WHATS THAT LOOK LIKE?

- This is a **50 point** project. If you complete all requirements and put minimal effort into the presentation modality (ie: a PowerPoint only or something of the like) you will earn a B on the project. (40-45/50)

- If you put the extra effort and take time to create something unique or creative you will earn an A (46-50/50)

- Extra credit can be rewarded if you go above and beyond! Up to 4 points!