**Taxonomy Project – Biology**

***In the year 2525, humans, after hundreds of years of constant effort, have successfully polluted all bodies of water on Earth. As a result, almost all previously known species of plants, animals, and other life have become extinct. Through natural selection, genetic engineering, and selective breeding programs, a portion of the Earth has been successfully repopulated. The following organisms are all that remain…***

1. Photosynthetic sun-basking sharks (their green fins have chlorophyll to convert sunlight to energy as autotrophs)

2. Chemosynthetic goldfish that convert pollution to food (autotrophs)

3. Aquatic humanoids whose main diet is aqua-wheat and basking sharks. They have fins instead of legs.

4. Aqua-wheat (one of the few remaining plants, similar to algae)

5. Terrestrial humanoids with 4 arms. Their diet consists of butter-roaches and fuzzy hamsters.

6. Tentacled aqua humanoids. They feed on aqua-wheat and have tentacles for arms and legs

7. Cockroaches that feed on human waste.

8. Giant aqua-spiders that live in water and feed on goldfish and basking sharks.

9. Green-haired rats that are photosynthetic (autotrophs)

10. Parasitic mosquitos that feed on any humanoid

11. Ten-legged fleas that live on the photosynthetic rats and drink blood.

12. Poison grass – this plant is a hybrid between grass and poison ivy. The plants are toxic to almost everything (autotrophs)

13. Fuzzy hamsters with green hair that use the sunlight to make their food (thought to be related the rats, also autotrophs)

14. Butter-roaches that were genetically engineered butterflies from cockroaches. They eat poison grass.

***Your assignment: As an alien taxonomist, it is your responsibility to classify these organisms listed above. You need to do the following…***

A. Create latin-sounding names for each organism. Remember: these will be scientific names and should include the genus and species classification, written as “Genus species”

B. Illustrate your interpretation of each organism’s appearance. Write the number and common name from above next to the drawing and also include the scientific name you created in part A next to each drawing.

C. Prepare a dichotomous key for these organisms so that your fellow aliens can identify them when they come to Earth for summer vacations. Remember: a dichotomous key is based on the APPEARANCE of the organism. You should use your drawings to make the key.

D. Diagram a food web using ALL the organisms listed above.