Daisyworld

Questions:

- What are the names of the other 2 people in your group?
- 3 other surprise questions

Mini Lecture:

- General format and content of the course, logistics, etc.
- Daisyworld
- Video

Game:

Change the simple Daisyworld into a game

- Choose an environmental parameter to add and vary
- Choose a biological parameter to add and vary
- Set an objective for the game
For just the environmental parameter, just the biological parameter and both parameters, predict:

- How to achieve the objective the fastest
- Cases where the objective can not be achieved, if any

Analyze the dynamics of your game in terms of positive and negative feedback loops. How can the dynamics be framed in terms of biological competition or cooperation?

---

**Key Concepts From This Class:**

Earth-life interactions – importance of environment for life

Dynamics of ecology – importance of interactions and feedbacks

---

**Preview of Next Class:**

What is life? – Information, Metabolism, Reproduction – Connect to daisies!

Information: Genomes and Evolution

---

**Assignments:**

- Reading – Watson and Lovelock, 1983

You don’t have to follow the math but pay attention to the results, especially with what we now know about climate change!

In 1983, scientists were just beginning to understand the implications of changing atmospheric CO2 and the feedbacks were very poorly constrained

- Videos – Gaia Playlist
- Daisyworld Homework #1
- Reading – How to Make a Microbial Mat