

Chromebook Virtual Lab: Population Dynamics

Question: _____

Purpose: _____

Objectives:

- _____
- _____

Procedure:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Journal Questions :

1. Make a hypothesis about how you think the two species of Paramecium will grow alone and how they will grow when they are grown together.
2. Explain how you tested your hypothesis.
3. On what day did the Paramecium caudatum population reach the carrying capacity of the environment when it was grown alone? How do you know?
4. On what day did the Paramecium aurelia population reach the carrying capacity of the environment? How do you know?
5. Explain the differences in the population growth patterns of the two Paramecium species. What does this tell you about how Paramecium aurelia uses available resources?
6. Describe what happened when the Paramecium populations were mixed in the same test tube. Do the results support the principle of competitive exclusion?
7. Explain how this experiment demonstrates that no two species can occupy the same niche.

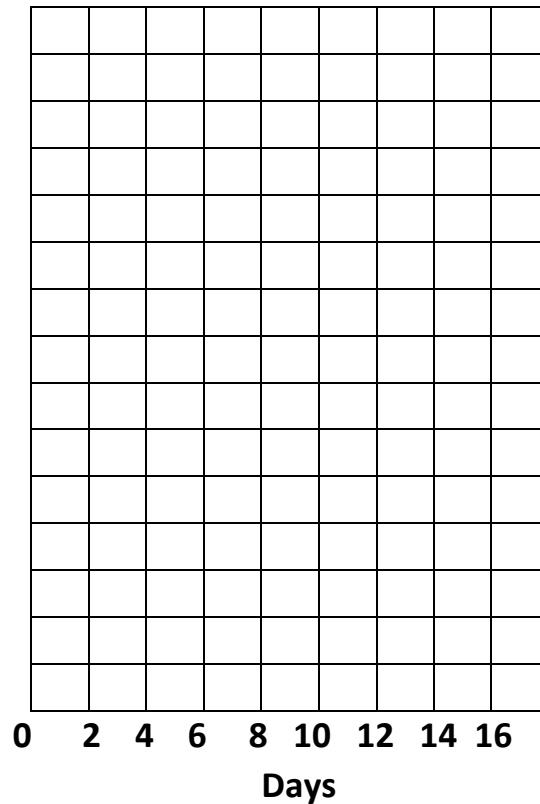
Data Table:

Paramecium Growth Data

Day	P.aurelia grown alone (cells/mL)	P.caudatum grown alone (cells/mL)	P.aurelia grown in mixed culture (cells/mL)	P.caudatum grown in mixed culture (cells/mL)
0				
2				
4				
6				
8				
10				
12				
14				
16				

Graph:

(Title)



Conclusion: How does competition affect population growth?