

Dark Reaction

6 CO₂
©

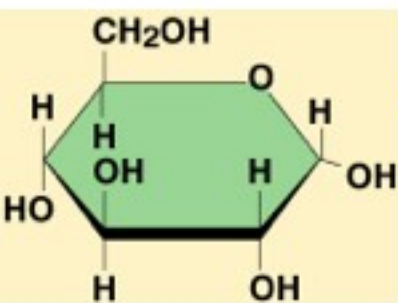
6 RuBP
©©©©©©

unstable
compound
©©©©©©©©

6 ATP
e⁻

6 ADP + P

©©©©©©©©
Glucose



10 PGAL
©©©©©©

12 PGA
©©©

12 ATP
e⁻

12 ADP + P

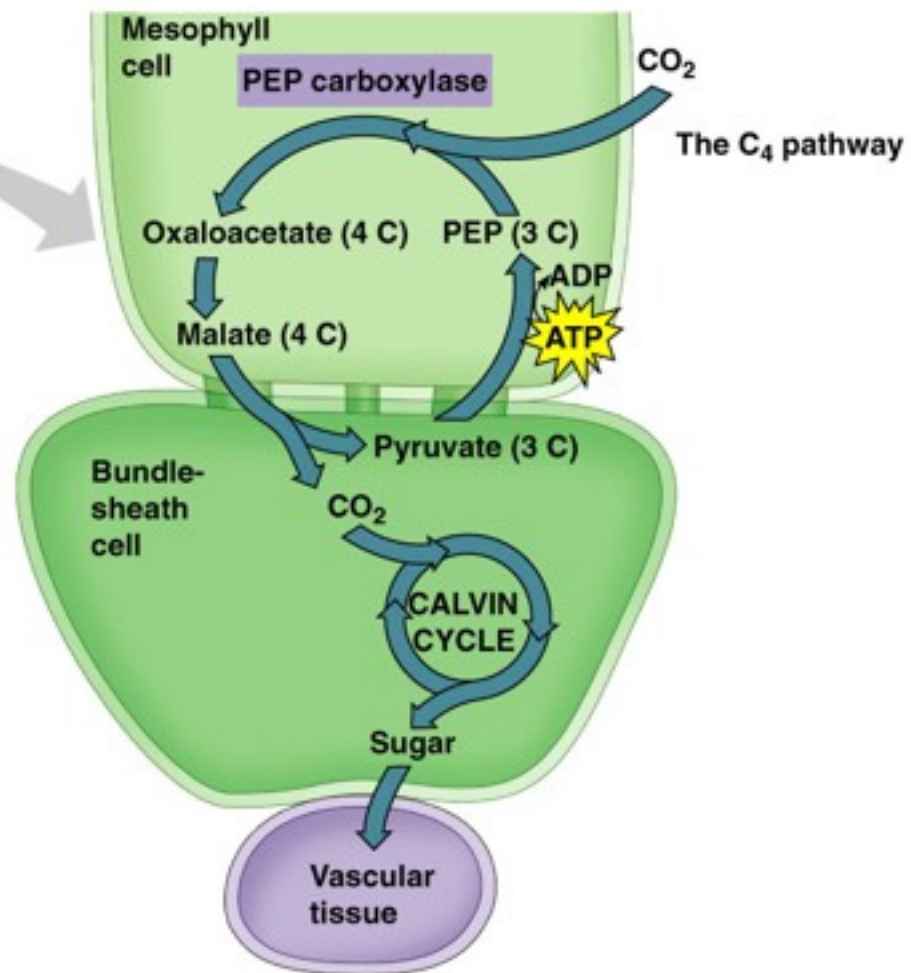
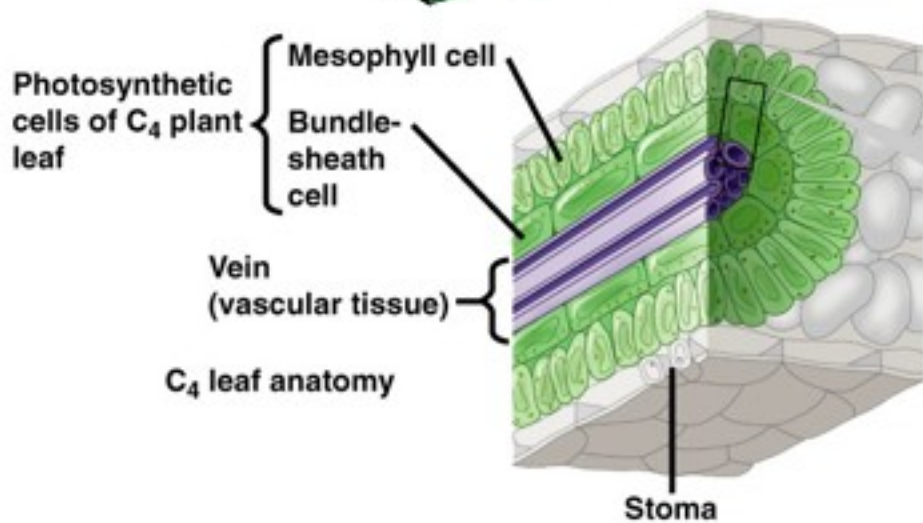
12 PGAL
©©©

12 NADPH + H⁺
e⁻

12 NADP⁺

2 PGAL
©©©

The C₄ Cycle



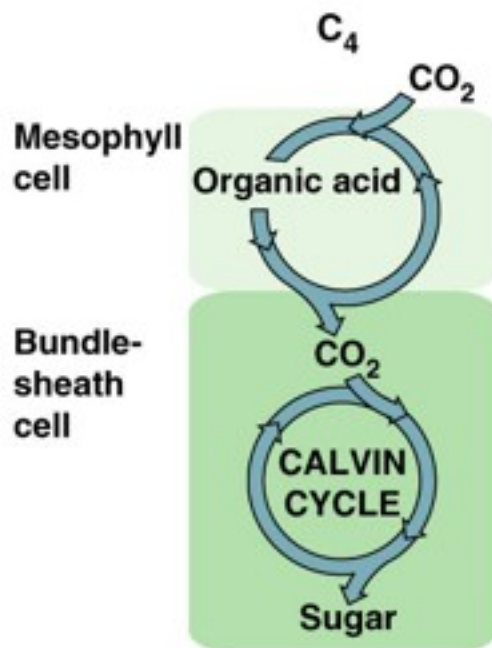
C4 vs. CAM



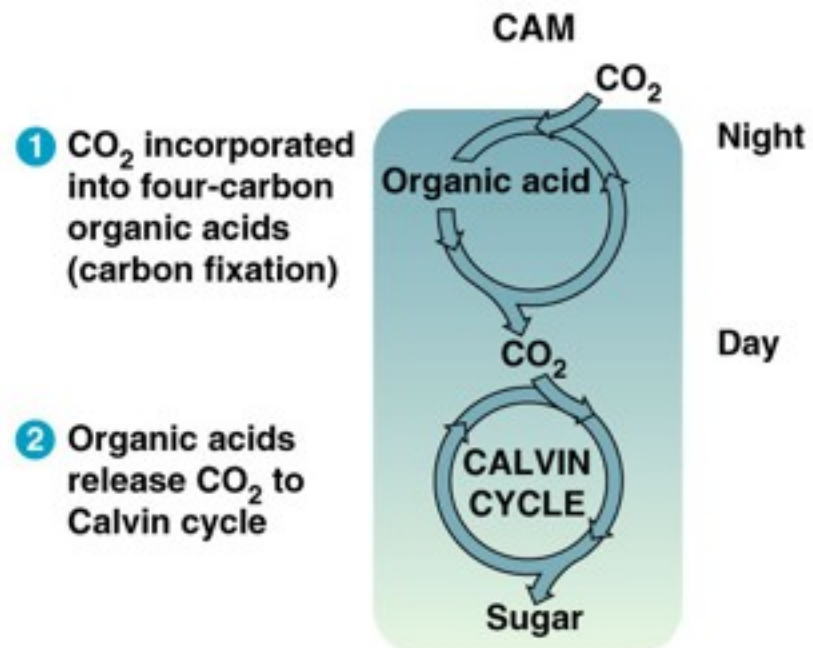
Sugarcane



Pineapple



(a) Spatial separation of steps



(b) Temporal separation of steps

