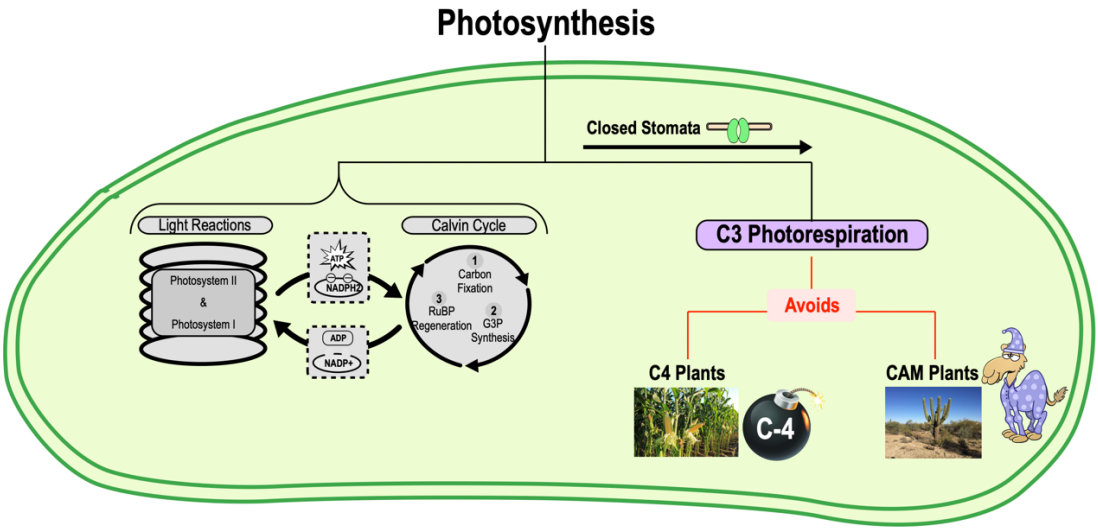
CONCEPT: C3, C4 & CAM PLANTS

- In *hot* temperatures, C3 plants are _____ susceptible to *photorespiration*, but some plants have evolved a *solution.*
  - □ _____ & _____ plants can *withstand* hot temperatures & _____ photorespiration.



Comparing 3 Types of Photosynthetic Plants

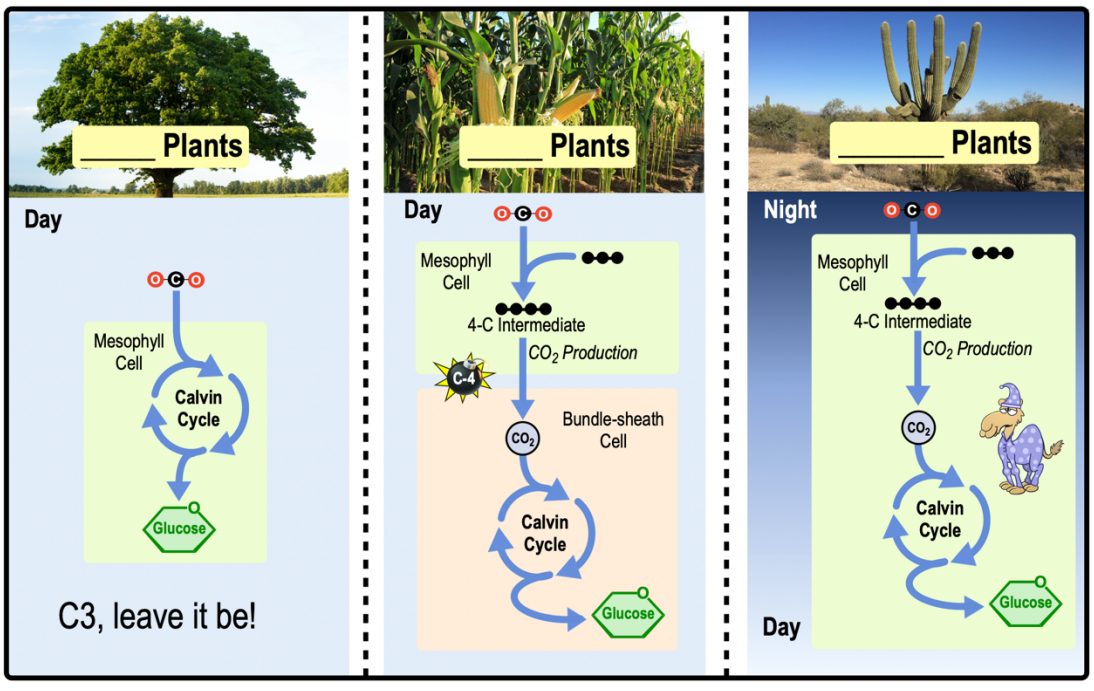
1)_____ **Plants**: _____ Carbon fixation round; _____-C intermediate; Light & Calvin Cycle in the _____ cell.

2)_____ **Plants**: _____ Carbon fixation rounds; _____-C intermediate; Light & Calvin Cycle in _____ cells.

- □ 4-C intermediate can supply additional _____ when CO_2 levels are low from closed stomata.

3)_____ **Plants:** _____ Carbon fixation rounds; _____-C intermediate; Light & Calvin Cycle in the _____ cell.

- □ Carbon fixation rounds occur at *different* times of the day (stomata _____ at night but *closed* at day).



CONCEPT: C3, C4 & CAM PLANTS

PRACTICE: A plant that opens its stomata only at night is a

a) C_2 plant.
b) CAM plant.
c) C_3 plant.
d) C_4 plant.

PRACTICE: CAM plants keep stomata closed in the daytime to reduce the loss of water. They can do this because they:

a) Fix CO_2 into organic 4-Carbon compounds during the night.
b) Fix CO_2 into organic 4-Carbon compounds in the bundle-sheath cells.
c) Fix CO_2 into pyruvate in the mesophyll cells.
d) Use photosystem I and photosystem II at night only.