

Carbon fixation

- CO₂ is added by the enzyme
- RuBisCO → 5- carbon compound RuBP → 2 molecules of 3-carbon PGA

Hatch and slack

- C₄ cycle
- β-carboxylation pathway and co-operative photosynthesis

Mesophyll cell and Bundle sheath cell

- C₄ cycle
- 2 types of photosynthetic cells
- Mesophyll → randomly distributed along cell walls
- Bundle sheath → chloroplasts are located close to the vascular tissues or mesophyll cells depending on the plant species

PHOTORESPIRATION

- lowers the efficiency of photosynthesis
- RuBP reacts with oxygen → carbon dioxide
- during the Calvin cycle
- because of catalytic activity of RuBP oxygenase
- important difference between C₃ and C₄ plants