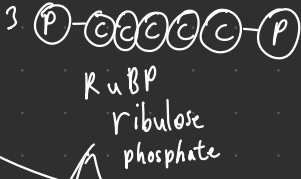


# Phase 1 carbon fixation

3 CO<sub>2</sub>

rubisco  
ribulose biphosphate  
(carboxylase)  
still an enzyme

very unstable



3-phosphoglyceric acid

phosphorylation

ATP<sup>6</sup>  
from light systems

6 ADP  
more reactive/  
less stable



1,3-biphosphoglycerate



carrying 2  
electrons  
oxidized to



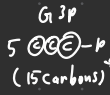
## Phase 2 Reduction



glyceraldehyde-3-phosphate

## Phase 3 regeneration

3 P<sub>i</sub>  
3 ADP



to make  
glucose!

- 1 G3P leaves the cycle
- takes 2 cycles or 6 carbon to make 1 glucose
- 2 G3P = 1 glucose

RuBP  
CO<sub>2</sub>  
acceptor