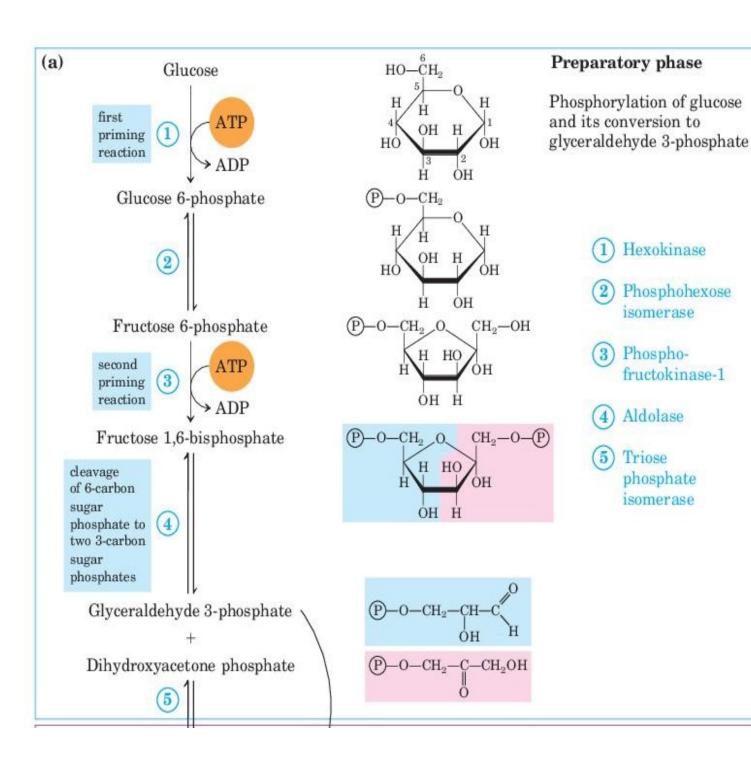
## Glycolytic Pathway

Source – Lehninger (Principle of Biochemistry)



## (b) Glyceraldehyde 3-phosphate (2) oxidation and phosphorylation 6 $2P_i$ $2NAD^+$ $2NAD^+$ $2NAD^+$ $4DH^-$ 1,3-Bisphosphoglycerate (2) first ATPforming reaction (substrate-level phosphorylation) 3-Phosphoglycerate (2) 2-Phosphoglycerate (2) Phosphoenolpyruvate (2) 2ADP second ATP-

Pyruvate (2)

forming reaction (substrate-level phosphorylation)

## Payoff phase

Oxidative conversion of glyceraldehyde 3-phosphate to pyruvate and the coupled formation of ATP and NADH

- $P-O-CH_2-CH-C$  O-P
- P-O-CH<sub>2</sub>-CH-COOH
  - $CH_2$ -CH-C O O O O O  $CH_2$ -C-O O
  - P
  - CH<sub>3</sub>-C-C

- Glyceraldehyde 3-phosphate dehydrogenase
- 7 Phosphoglycerate kinase
- 8 Phosphoglycerate mutase
- 9 Enolase
- 10 Pyruvate kinase