1. phosphofructokinase
2. hexokinase (traps glucose into the cell)
3. aldolase

Enzymes of Glycolysis	
Enzyme	**Function**
Hexokinase	Converts glucose into glucose-6-phosphate
Phosphoglucose isomerase	Converts glucose-6-phosphate into fructose-6-phosphate
Phosphofructokinase	Converts fructose-6-phosphate into fructose 1,6-bisphosphate
Aldolase	Converts fructose 1,6-bisphosphate into dihydroxyacetone phosphate and glyceraldehyde 3-phosphate
Triose phosphate isomerase	Converts dihydroxyacetone phosphate into glyceraldehyde 3-phosphate
Glyceraldehyde 3-phosphate dehydrogenase	Converts glyceraldehyde 3-phosphate into 1,3 bisphosphoglycerate
Phosphoglycerate kinase	Converts 1,3-bisphosphoglycerate into 3-phosphoglycerate
Phosphoglyceromutase	Converts 3-phosphoglycerate into 2-phosphoglycerate
Enolase	Converts 2-phosphoglycerate into phosphoenolpyruvate
Pyruvate kinase	Converts phosphoenolpyruvate into pyruvate

Nine reactions, each catalyzed by a specific enzyme, make up the process we call **glycolysis**. All organisms have glycolysis occurring in their **cytoplasm**.

At **steps 1 and 3,** ATP is converted into ADP, inputting energy into the reaction as well as attaching a phosphate to the glucose. **At steps 7 and 10,** ADP is converted into the higher energy ATP. **At step 6,** NAD^+ is converted into NADH + H^+.

The end of the glycolysis process yields two pyruvic acid molecules with a **net gain of 2 ATP** and **two NADH per glucose**.