The Three Stages of Catabolism

Stage I:
Hydrolysis of Macromolecules into Building Blocks

Stage II:
Conversion of Building Blocks into Acetyl CoA

Stage III:
Complete Oxidation forming simple End Products

Overview of Glucose Metabolism

Carbons
One 6C glucose SPLITS TO FORM two 3C molecules
OXIDIZED TO FORM two 3C pyruvates
BREAKING INTO two 1C CO₂ and two 2C Acetyl CoA
FURTHER OXIDATION YIELDS a total of six 1C CO₂

Oxidative Phosphorylation

Oxygen receives H's from NADH and FADH₂ to form H₂O.

Total = \( \text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{O}_2 \rightarrow 6 \text{CO}_2 + 6 \text{H}_2\text{O} \)