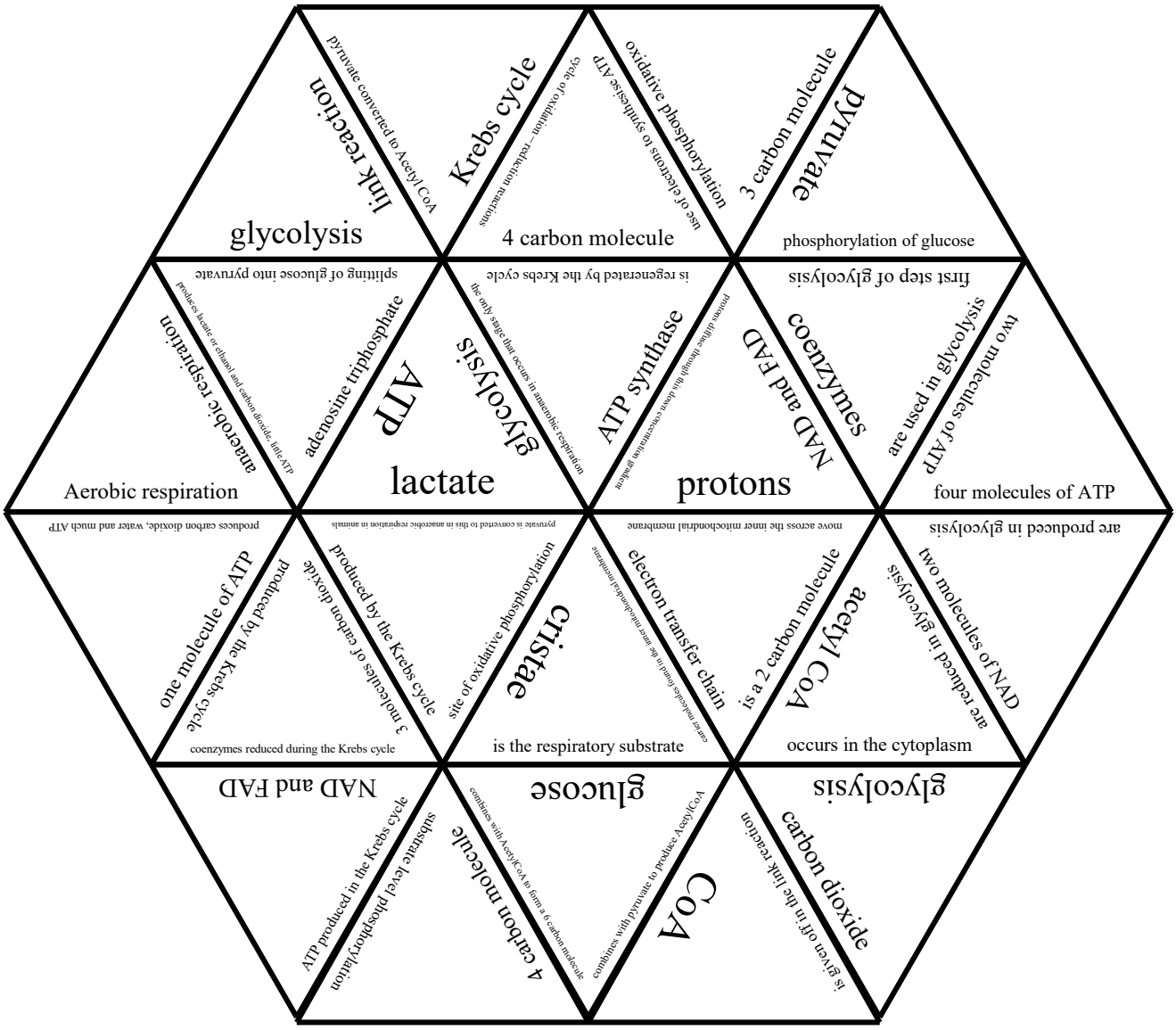
glycolysis
pyruvate converted to Acetyl CoA
link reaction
Krebs cycle
cycle of oxidation – reduction reactions
4 carbon molecule
oxidative phosphorylation
use of electrons to synthesise ATP
3 carbon molecule
pyruvate
phosphorylation of glucose
splitting of glucose into pyruvate
is regenerated by the Krebs cycle
first step of glycolysis
Aerobic respiration
anaerobic respiration
produces lactate or ethanol and carbondioxide, little ATP
adenosine triphosphate
ATP
glycolysis
the only stage that occurs in anaerobic respiration
lactate
ATP synthase
proton diffuse through this down concentration gradient
protons
NAD and FAD
coenzymes
are used in glycolysis
two molecules of ATP
four molecules of ATP
produces carbon dioxide, water and much ATP
pyruvate is converted to this in anaerobic respiration in animals
move across the inner mitochondrial membrane
are produced in glycolysis
one molecule of ATP
produced by the Krebs cycle
3 molecules of carbon dioxide
produced by the Krebs cycle
site of oxidative phosphorylation
cristae
electron transfer chain
carrier molecules found in the inner mitochondrial membrane
is a 2 carbon molecule
acetyl CoA
two molecules of NAD
are reduced in glycolysis
coenzymes reduced during the Krebs cycle
is the respiratory substrate
occurs in the cytoplasm
NAD and FAD
ATP produced in the Krebs cycle
substrate level phosphorylation
glucose
4 carbon molecule
combines with AcetylCoA to form a 6 carbon molecule
CoA
combines with pyruvate to produce AcetylCoA
glycolysis
carbon dioxide
is given off in the link reaction