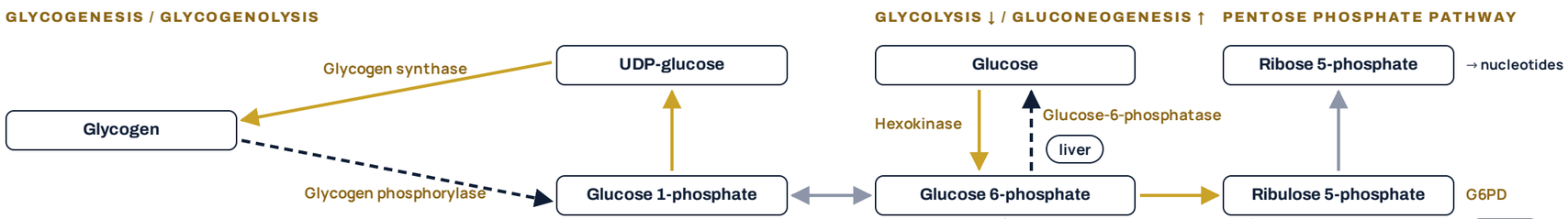
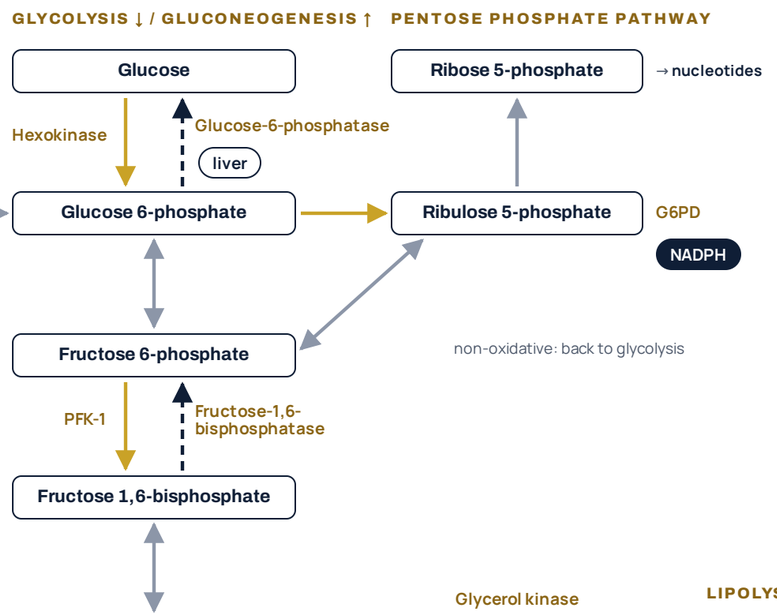
The Big Picture, Part 2 ANSWER KEY

SweetLion Prep

Name _____ Date _____







How to use this map

Arrow color shows when each pathway runs.

- Fed (insulin)
- Fasted (glucagon, epinephrine)
- Both / either state

Connect it

Pathways that run only in the liver	**gluconeogenesis*, ketogenesis, urea cycle**
Why even-chain fats can't make glucose	**PDH is irreversible; no net OAA from acetyl-CoA**
Malonyl-CoA's effect on β-oxidation	**blocks CPT-I**
Fasting liver: OAA goes to	**gluconeogenesis, so acetyl-CoA → ketones**

*with some help from the kidney

Connect it, continued

NADPH for fatty acid synthesis comes from **the pentose phosphate pathway**

Lactate from muscle returns to liver by **the Cori cycle**

Where urea cycle meets the TCA cycle **fumarate (and aspartate from OAA)**

Both carboxylases (PC, ACC) need **biotin**

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