

Name: _____

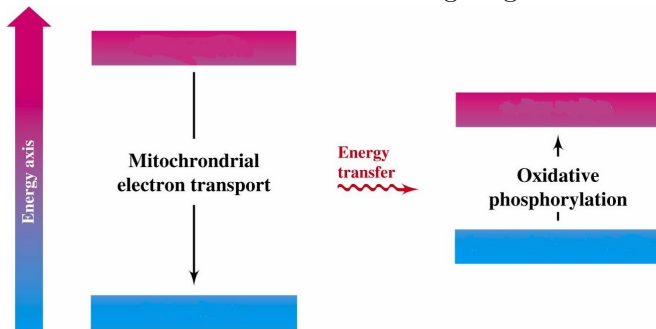
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[6 pt] 1. What are the two mechanisms for energy conversion in the body? How are they different? (List 3 ways)

[5 pt] 2. Complete the following reaction:
 $R-OH + H_3PO_4 + \text{Energy} \longrightarrow$

[3 pt] 3. The previous reaction is an example of what process? Draw an arrow pointing to the high-energy phosphate bond.

[4 pt] 4. Fill in the four boxes in the following diagram with four of the following: NAD^+ , $NADH$, $FADH_2$, FAD , ADP , ATP .



[3 pt] 5. How many molecules of ATP can be obtained from $2 NADH + 3 FADH_2$? Explain.

[3 pt] 6. The following reaction is part of the glycolysis pathway. Is this step a net gain or loss in energy for a cell? Explain.

