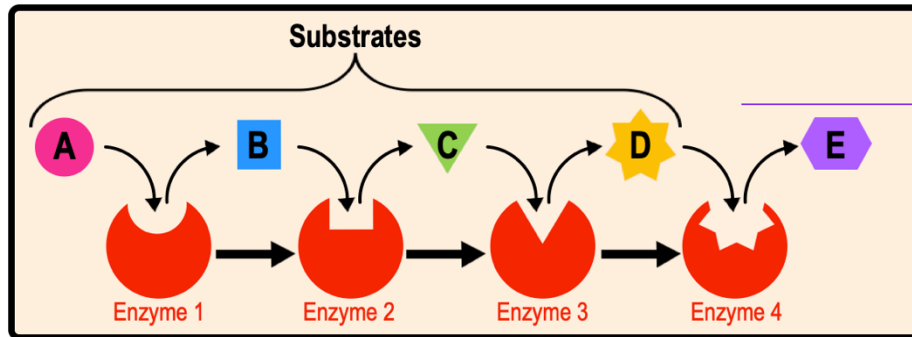


CONCEPT: INTRODUCTION TO METABOLISM

● **Metabolism:** _____ of an organism's *chemical reactions*.

□ *Metabolic* _____: series of reactions that alters a substrate multiple times before the final product.

EXAMPLE: Metabolic pathways have multiple steps.



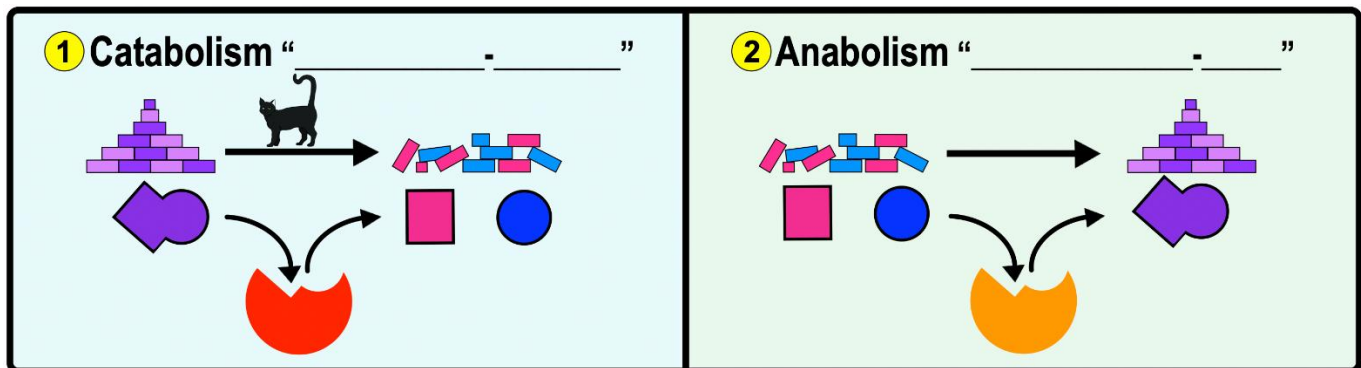
Catabolic & Anabolic Pathways

● There are _____ types of *metabolic pathways*:

① _____ **abolic Pathways** (*Catabolism*): *releases energy by breaking-*_____ molecules into smaller ones.

② **Anabolic Pathways** (*Anabolism*): *spends energy to build-*_____ larger molecules (like DNA & proteins).

EXAMPLE: Catabolic vs. Anabolic Reactions.



PRACTICE: Which of the following terms specifically describes the metabolic process of breaking down large molecules?

- a) Catabolism. b) Metabolism. c) Anabolism. d) Dehydration.

PRACTICE: Which of the following statements is TRUE regarding anabolic pathways?

- a) They are used for digesting sugars.
b) They consume energy to build up polymers from monomers.
c) They release energy by breaking down polymers into monomers.
d) They increase the entropy of the organism.