

# CHEMISTRY OF LIFE

Unit 4 Review

## WHAT IS THE CONNECTION BETWEEN THE NAME OF AN ENZYME AND THE THING IT BREAKS DOWN?

- Enzymes end in "ase" thing it breaks down ends with "ose"
- I.e. amylose (substrate) is broken down by amylase (enzyme)

## WHAT IS A MONOMER?

- Building block of a polymer
- I.e. amino acid is a monomer of a protein
- Monosaccharide is a monomer of a carbohydrate

## WHAT ARE THE ELEMENTS FOUND IN ALL LIVING THINGS?

- CHNOPS
- Carbon, hydrogen, nitrogen, phosphorus

## WHAT IS AN ACTIVE SITE?

- The place on an enzyme that fits with the shape of the substrate

## WHAT DO ENZYMES DO?

- Speed up chemical reactions
- Reduce the amount of energy needed to start a chemical reaction (activation energy)

### HOW DO ENZYMES AFFECT REACTIONS IN LIVING CELLS?

- Makes the reactions go faster

### WHAT IS AN EXAMPLE OF A NUCLEOTIDE?

- DNA or RNA

### WHAT ARE EXAMPLES OF CARBS? (SCIENTIFIC NAMES)

- Monosaccharides
- Disaccharides
- Polysaccharides

### WHAT IS THE MAIN SOURCE OF ENERGY FOR LIVING THINGS?

- Carbs

### WHAT ARE THE FOUR MAIN TYPES OF CARBON BASED MOLECULES IN LIVING THINGS?

- Carbs
- Lipids
- Protein
- Nucleic acids

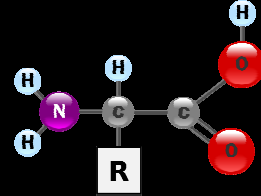
### WHAT IS THE FUNCTION OF PROTEIN?

- Control reaction rates
- Form bones and muscle
- Fight disease

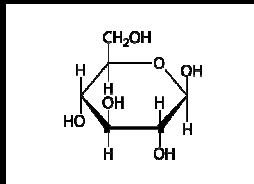
## WHAT ARE THE BUILDING BLOCKS OF PROTEIN?

- Amino acids

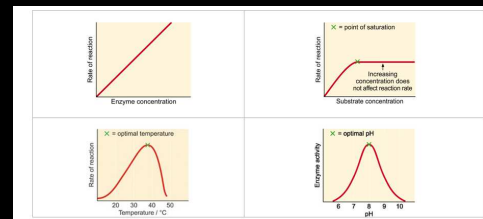
## WHAT IS THIS?



## WHAT IS THIS?

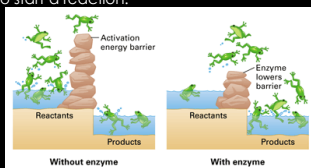


## KNOW THESE GRAPHS...



## WHAT IS ACTIVATION ENERGY?

- Energy needed to start a reaction.



## WHAT ARE SOME EXAMPLES OF LONG CHAIN SUGARS AKA POLYSACCHARIDES?

- Cellulose
- Starch
- Glycogen

### WHAT IS A SUBSTRATE?

- The specific thing an enzyme works on/ with.

### WHAT IS A CATALYST?

- Substance, like an enzyme that speeds up chemical reactions

### WHAT IS METABOLISM?

- The sum of all the chemical reactions that occur in the body/ cell.

REVIEW SCIENTIFIC METHOD AND  
CELL TRANSPORT TOO.... ☺!