

Questions (think of questions that might be on the exam)

Q. How are inorganic compounds different from organic compounds?

I. Chemical Compounds in Cells

A. Elements and Compounds

1. Elements – any substance that

a) Smallest unit = _____

2. Compounds – when two or more
_____ combine _____

a) Smallest unit = _____

3. The compound called water

a) Water – most

_____ in cells could not
take place without water

(1) dissolves _____

(2) maintains cell's _____
& _____

(3) keeps cell _____
from changing rapidly

4. Organic and Inorganic Compounds

a) _____-Compounds in living things
with carbon

(1) EX: carbon dioxide = CO₂

5. Inorganic- Compounds not containing carbon

(1) EX: water = _____,

(2) salt = _____

B. Carbohydrates = _____ organic
compound made up of the elements _____,
_____, and _____.

1. EX: _____ and _____

2. In plants _____ are made during

3. Cells store excess _____ in _____ molecules

4. Cells use _____ to form cell parts like the _____ and _____

C. **Lipids** = energy rich _____ made of _____, _____, and _____.

1. EX: _____, _____, and _____

2. Contains more _____ than _____

3. Cells store _____ for later use in _____

4. _____ is mainly made of _____

D. **Proteins** – large _____ molecules made up of _____, _____, _____ and sometimes _____.

a) EX: Food: _____, _____, _____ and _____

1. **Structure of Proteins**

a) Smaller molecules of _____ make up _____

b) 20 common _____ combine to form _____

2. **Function of Proteins**

a) Form parts of the _____ and some cell _____

b) _____ called _____ perform important jobs in the _____ in cells

(1) Enzyme- _____ chemical reactions

E. **Nucleic Acids** = very long molecules made of _____, _____, _____, _____, and _____

Q. What are 3 kinds of lipids?

Q. What is the role of enzymes in cells?

1. They contain the _____ that cells need to carry out all the _____ of life

a) _____ kinds of nucleic acids

**(1) DNA –
(_____) genetic material that carries _____ about an organism and is passed from _____ to _____**

(a) Mostly found in the _____ in the _____

(2) RNA – (_____) important role in the _____

(a) Found in the _____ and the _____

Q. What are the two kinds of nucleic acids? What are their functions?

Summary (5 sentences)