

Biochem Review Sheet for Test #1

Name _____ Period _____

All answers can be found in your class notes and the book. I have listed pages in the book for some of the questions to aid you. This review sheet is to help guide your studies, it would be a good idea to look over your class notes and powerpoints in addition to this review

1. Name the 3 parts of the atom and what their charge is. (pg 48, class notes)

_____ has a _____ charge and is located _____

_____ has a _____ charge and is located _____

_____ has a _____ charge and is located _____

2. The _____ and the _____ have most of the mass of an atom and make up the atomic mass number. (pg 48-49, quiz, CH 3 outline)

3. An atom becomes an ion when it _____ an electron (pg. 53 chemical bonding powerpoint)

4. What charge does an atom take on when it loses an electron? _____, gains? _____
(pg 52, CH 4 outline, bonding .ppt)

5. The basic unit of matter is called the _____ (pg 47, CH 3 outline)

6. If two atoms have the same atomic number they are _____
(pg 48, CH 3 outline)

7. An atom with a full outmost energy level is said to be _____ (pg 52, Chemical bonding .ppt)

8. A compound that shares electrons is said to be _____ bonded (53-54, Chemical bonding .ppt)

9. Atoms interact with each other to _____ (pg 52, chemical bonds .ppt)

10. What are the three phases of water _____, _____, and _____
(pg 47)

11. What are the properties of a solid? (shape and volume) _____,
Liquid _____, Gas _____
(CH 3 .ppt)

12. Using the periodic table and or a diagram of Oxygen how many protons does it have? _____, electrons? _____
Neutrons? _____. (pg 48-49, CH 3 .ppt, CH outline)

13. Where are protons, neutrons, and electrons located in the atom? _____
_____ (pg 48, CH3 outline, CH 3 powerpoint)

What is the basic unit of matter? (Circle one) Molecule, atom, compound, electron, other.

All atoms of the same substance have the same? (pg 48)

(Biochemistry ppt 3-1, 3-2)

Solids have a –

Liquids have a -

Gases have a –

Know the energy levels and how many electrons they can hold (floors of the hotel) (pg 52)

1st energy level –

2nd energy level –

3rd energy level –

The atomic number of an element tells you?

The mass number of an element tells you?

A sodium atom (Na) becomes a sodium ion (Na^+), when the atom

How many neutrons does Technetium have? How do you know?

What is the atomic number of an atom with 30 protons and 37 neutrons?

If an element loses an electron what type of ion forms? POSITIVE or NEGATIVE

How many valence electrons does Ca have? How did you figure it out?

Know what an ion is and how it is “made” (pg 52-54)

An ion is –

It is made by –

An ionic bond is made by –

A covalent bond is made by –

Boron(B) and sulfur(S) react to form an ionic compound with the formula? _____. How did you figure it out?

When an element has a full outermost energy level we say the element is _____. Why?

Why do elements react with each other? What are they trying to achieve.

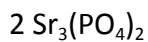
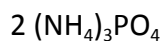
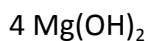
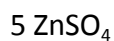
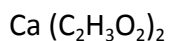
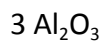
Be able to draw a Lewis dot structure of an element AND how it forms an ionic bond AND covalent bond.

Be able to figure out the chemical formula if given two elements to bond. EX. Carbon and Hydrogen. Ex N and H or Mg and S

What is special about water charge? Draw a molecule of water and the proper charge.

Counting Atoms (counting atoms ppt)

List each element and the number of total atoms



Element	Symbol	# of Protons	# of Electrons	# of Valence Electrons	Lewis Dot Diagram	Favored ion charge
Sodium						
Calcium						
Aluminum						
Chlorine						
Iodine						

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Ionic Bonding

Draw the Lewis dot structure and the final configuration and include the chemical formula

Na+O

Be+F

Al+Cl

Ca+P

Covalent Bonding

Draw the Lewis dot structure of each atom then draw the Lewis dot structure of the final compound and circle the bonding pairs

Hydrogen + Oxygen (H₂O)

Oxygen + Oxygen (O₂)

Carbon + Oxygen (CO₂)

Carbon + Hydrogen (CH₄)