

Chemistry 20: Bonding MI Assignment

Name: _____ Partner's Name if it's a drama: _____

INTRODUCTION: An understanding of types of bonds between elements and compounds is an important. For this project, you will use 2 or more of your MI strengths and any available medium **except** a plain poster (music, drama, computer programs, writing, building and drawing) to accurately demonstrate the Chemistry concepts below to the level described in the notes and class discussions. The project must be created alone unless it is a drama or musical which may be done in groups of two.

LEARNING OUTCOME	Self Mark	Peer Mark
Using two or more of your MI strengths, demonstrate your understanding of :		
1) The types of intra-molecular bonds. Include a demonstration of: <ol style="list-style-type: none"> a. What a bond is b. an ionic bond (provide examples) c. a molecular bond (provide examples) d. a metallic bond (provide examples) e. a network covalent bond (provide examples) 5 marks 5 marks
2) Ionic Bonding. Include: <ol style="list-style-type: none"> a. The principles for naming and drawing Formula units b. How valence electrons & electronegativity are used with ionic bonds c. The lattice structures/models for ionic compounds d. How the ionic bond and structure relate to their properties (melting point, dissolving and reactivity) e. other properties for ionic bonds. 5 marks 5 marks
3) Covalent Bonding. Include: <ol style="list-style-type: none"> a. The principles for naming molecular substances b. How valence electrons & electronegativity are used with covalent bond c. how single, double and triple bonds form with examples/models d. how the formula for molecular substances refers to the number of atoms e. other properties for molecular bonds 5 marks 5 marks
4) Lewis Dot diagrams Include: <ol style="list-style-type: none"> a. Lewis dot diagrams for elements with 2 or more examples b. Lewis dot diagrams for binary ionic solids with 2 or more examples c. Lewis dot diagrams for polyatomic ions with 2 or more examples d. Lewis dot diagrams for molecular compounds with 2 or more examples e. Lewis Dot diagram with coordinate covalent bonds OR 5 marks 5 marks
5) Intermolecular forces and VSEPR Theory Include: <ol style="list-style-type: none"> a. What is the VSEPR Theory b. VSEPR shapes → linear, angular(v-shaped), tetrahedral, pyramidal and trigonal planar c. Intermolecular forces: LD(London dispersion), dipole-dipole and hydrogen bonding d. How to use intermolecular bonding to predict relative melting & boiling points, heats of fusion & vaporization and other properties e. How polarity of a molecule is based on the shapes and charge distribution 5 marks 5 marks

PROJECT IDEAS: Math Smart – organize your ideas into a chart;
People Smart– create a game; Self Smart – journal or create a study guide;
Body Smart – animate with your own body ; Music Smart – write a song;
Picture Smart – draw a picture/animation; Nature Smart – use an animal;
Word Smart – Create a story or crossword

Score	Scoring Description
25 (5)	Demonstrates a thorough & correct understanding of the concept, idea or skill. The project is well organized and addresses all the major learning outcomes using information provided to the student in the class notes/discussion. The project also addresses other worthwhile learning outcomes . More than one Multiple Intelligence Strengths is used to illustrate understanding of the whole concept, idea or skill.
20 (4)	Demonstrates a thorough & mostly correct understanding of the concept, idea or skill. The project is well organized and addresses a majority of the learning outcomes . One or more Multiple Intelligence Strengths may be used to illustrate understanding of the whole concept, idea or skill.
15 (3)	Demonstrates a somewhat correct understanding of the concept, idea or skill. The project is organized and addresses most of the major learning outcomes . At least one Multiple Intelligence Strength is used to illustrate understanding of part of the concept, idea or skill.
10 (2)	Demonstrates a poor but partly correct understanding of the concept, idea or skill. The project is disorganized and addresses some of the major learning outcomes . Partial use of one Multiple Intelligence Strength is evident to illustrate the understanding of part of the concept, idea or skill
5 (1)	Demonstrates a poor and incorrect understanding of the concept, idea or skill. The project is very disorganized, superficial and addresses few of the major learning outcomes . There is little or no Multiple Intelligence Strength being used.
0	The project does not address any of the major learning outcomes provided. There is little or no evidence of a Multiple Intelligence Strength be used.