Chemical Bonding Project

**Due Date:** October 12(B)/13(A) 2017

This project is designed to let you demonstrate your knowledge of ionic and covalent bonding. All projects must include:

* Explanation/Demonstration of Ionic Bonding
* Explanation/Demonstration of Covalent Bonding
* Explanation/Demonstration of valence electrons and how they are related to each type of bond
* Explanation/Demonstration of how periodic trends affect bonding (what kinds of atoms are involved in each type of bond?)

Your choices for project are:

* Tri-Fold Brochure: Brochure must be on an 8 ½ x 11 piece of paper. It must be types in size 11 Calibri font, single-space. A minimum of 3 pictures should be used, but the number of pictures may not exceed 5. Brochure should be free of spelling and grammar errors.
* Video: The video should creatively demonstrate chemical bonding. DO NOT just stand in front of the camera and state definitions and explanations. Video must be a minimum 2 minutes in length but should not exceed 5 minutes. Regardless of length, all required information should be covered in the video.
* Storybook/Comic Book: Storybooks and comic books should tell a story, have characters, and a central theme. For the storybook, one picture is required per page. The comic strip will have more pictures. Both should be submitted on 8 ½ x 11 paper. If typed, typing must be in size 11 Calibri font. The storybook should be a minimum of 8 pages; the comic book should be a minimum of 4. Story and comic books should be free of spelling and grammar errors.
* Song/Rap: Songs or Raps should be creative in nature. DO NOT just sing/rap definitions and explanations. Songs should have a melody. Raps should have a pattern or rhythm. Song or Rap must be a minimum of 2 minutes in length but should not exceed 5 minutes. Recording of song or rap will be accepted for presentation purposes.
* Model: Models should represent both kinds of bonds. Do not go beyond the first 20 elements when selecting atoms for bonding. Model should have a write up explaining the properties of the atoms involved, and the properties of the molecule resulting from the bonds and how they differ. Try to use materials related to atoms or molecules formed.

Work should be genuine, not copied. Electronic projects should be submitted on a USB drive or emailed. Paper copies should be brought in for other projects on due date.

Grading Rubric

Class Number:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Due Date:\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| --- | --- | --- | --- | --- |
| **Component** | 4 | 3 | 2 | 1 |
| **Ionic Bonding** | Project fully explains or demonstrates ionic bonding | Project partially explains or demonstrates ionic bonding | Project loosely explains or demonstrates ionic bonding | Project incorrectly demonstrates or explains ionic bonding |
| **Covalent Bonding** | Project fully explains or demonstrates covalent bonding | Project partially explains or demonstrates covalent bonding | Project loosely explains or demonstrates covalent bonding | Project incorrectly demonstrates or explains covalent bonding |
| **Valence Electrons** | Project fully explains or demonstrates the role of valence electrons in bonding | Project partially explains or demonstrates the role of valence electrons in bonding | Project loosely explains or demonstrates the role of valence electrons in bonding | Project incorrectly explains or demonstrates role of valence electrons in bonding |
| **Periodic Trends** | Project fully explains or demonstrates how periodic trends affect bonding | Project partially explains or demonstrates how periodic trends affect bonding | Project loosely explains or demonstrates how periodic trends affect bonding | Project incorrectly explains or demonstrates periodic trends in bonding |
| **Neatness and Grammar** | Project is visually pleasing and free of errors | Project lacks some neatness and/or has errors | Project lacks neatness and/or has many errors | Project is sloppy, even vocabulary words are spelled incorrectly |
| **Specific Project Type** | Specific project requirements were all met (see previous page) | Most project requirements were met | Few, if any, project requirements were met | Little connection between project you turned in and projects listed on previous page |

Total\_\_\_\_\_\_\_\_\_\_\_/24