08 AP VSEPR Lab (2138662)

Question 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

Instructions

A. Obtain the following for your group.

6 green (fluorine, chlorine, bromine or iodine) 4-prong model parts
3 red (oxygen) 4-prong model parts
1 blue (nitrogen) 4-prong model part
1 purple (phosphorous, xenon, chlorine, bromine, arsenic or iodine) 5-prong model part
1 silver (xenon, sulfur, selenium, bromine, arsenic or iodine) 6-prong model part
2 black (carbon or sulfur) 4-prong model parts
1 yellow (sulfur) 4-prong model parts
3 hydrogen (white) 1-prong model parts
6 short clear tubes (single bonds)
6 long clear tubes (double or triple bonds)

B. Only one student in each group will turn in this assignment. Use one iPad for Webassign and one iPad for Screen Chomp. Create a Lewis dot structure for each molecule using the iPad app: Screen Chomp.
C. Next create a model of the molecule using the parts you collected in step A.
D. Use the model to help answer the questions. Only one student in each group will open Webassign and submit answers.
E. To count the number of bonds on the central atom, a single bond counts as one bond, a double bond counts as one bond and a triple bond counts as one bond.

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1. Question Details Lab Partners [1837468]

Enter the name(s) of your lab partner(s). (If you worked by yourself, enter "none").

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2. Question Details VSEPR XeF4 [1928972]

Using the Lewis structure and a model, answer the following questions about XeF_4.
How many bonds are on the central atom? ---
How many lone pairs are on the central atom? ---
The shape of XeF_4 is: ---Select---

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3. Question Details Hybridization XeF4 [1928977]

The hybridization of Xe in XeF_4 is: ---Select---

4. Question Details VSEPR H2CO [1928989]

Using the Lewis structure and a model, answer the following questions about H_2CO.

How many bonds are on the central atom?

How many lone pairs are on the central atom?

The shape of H_2CO is: ---Select---

There are several Lewis structures that satisfy the octet rule for H_2CO. Use the structure with the least formal charges to answer the following:

What is the formal charge on the carbon?

What is the formal charge on the oxygen?

5. Question Details Hybridization H2CO [1928991]

The hybridization of C in H_2CO is: ---Select---

6. Question Details VSEPR H3O+ [1928994]

Using the Lewis structure and a model, answer the following questions about H_3O^+.

How many bonds are on the central atom?

How many lone pairs are on the central atom?

The shape of H_3O^+ is: ---Select---

What is the formal charge on the hydrogens?

What is the formal charge on the oxygen?

7. Question Details Hybridization H3O+ [1928996]

The hybridization of O in H_3O^+ is: ---Select---

8. Question Details VSEPR BrF5 [1929005]

Using the Lewis structure and a model, answer the following questions about BrF_5.

How many bonds are on the central atom?

How many lone pairs are on the central atom?

The shape of BrF_5 is: ---Select---

9. Question Details Hybridization BrF5 [1929007]

The hybridization of Br in BrF_5 is: ---Select---

10. Question Details VSEPR SCl2 [1929009]

Using the Lewis structure and a model, answer the following questions about SCl_2.

How many bonds are on the central atom?

How many lone pairs are on the central atom?

The shape of SCl_2 is: ---Select---

11. Question Details Hybridization SCl2 [1929127]

The hybridization of S in SCl_2 is: ---Select---

12. Question Details VSEPR SCN- [1929125]

Using the Lewis structure and a model, answer the following questions about SCN^-.

How many bonds are on the central atom?

How many lone pairs are on the central atom?

The shape of SCN^- is: ---Select---

There are several Lewis structures that satisfy the octet rule for SCN^-.

Use the structure with the least formal charges to answer the following:

What is the formal charge on the sulfur?

What is the formal charge on the carbon?

What is the formal charge on the nitrogen?

13. Question Details Hybridization SCN- [1929012]

The hybridization of C in SCN^- is: ---Select---

14. Question Details VSEPR AsF4- [1929128]

Using the Lewis structure and a model, answer the following questions about AsF_4^-.

How many bonds are on the central atom?

How many lone pairs are on the central atom?

The shape of AsF_4^- is: ---Select---

15. Question Details Hybridization AsF4- [1929131]

The hybridization of As in AsF_4^- is: ---Select---

16. Question Details VSEPR XeH2 [1929146]

Using the Lewis structure and a model, answer the following questions about XeH_2.
How many bonds are on the central atom?
How many lone pairs are on the central atom?
The shape of XeH_2 is: ---Select---

17. Question Details Hybridization XeH2 [1929147]

The hybridization of Xe in XeH_2 is: ---Select---

18. Question Details VSEPR ClF3 [1929148]

Using the Lewis structure and a model, answer the following questions about ClF_3.
How many bonds are on the central atom?
How many lone pairs are on the central atom?
The shape of ClF_3 is: ---Select---

19. Question Details Hybridization ClF3 [1929149]

The hybridization of Cl in ClF_3 is: ---Select---

20. Question Details VSEPR SeI6 [1929156]

Using the Lewis structure and a model, answer the following questions about SeI_6.
How many bonds are on the central atom?
How many lone pairs are on the central atom?
The shape of SeI_6 is: ---Select---

21. Question Details Hybridization SeI6 [1929157]

The hybridization of Se in SeI_6 is: ---Select---

Assignment Details

Name (AID): **08 AP VSEPR Lab (2138662)**
Submissions Allowed: **5**
Category: **Homework**
Code:
Locked: **Yes**
Author: **Ryan, Matt (** mryan@allsaintsschool.org **)**
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