

**White Board Practice**  
**Types of Bonds and**  
**Nomenclature**

Write down your answer on the white board and hold it up when you think that you have the answer!

1

**How many valence electrons does Oxygen have?**

2

**What charge will oxygen have when it forms an ion? What will its name be?**

3

**CCl<sub>4</sub>**  
**Type of bond? Name?**

4

**Mg(OH)<sub>2</sub>**  
**Type of bond? Name?**

5

**NaCl**  
**Type of bond? Name?**

6

**NaF**  
**Type of bond? Name?**

7

**Ba(NO<sub>3</sub>)<sub>2</sub>**  
**Type of bond? Name?**

8

**Li<sub>2</sub>SO<sub>4</sub>**  
**Type of bond? Name?**

9

**S<sub>2</sub>F<sub>4</sub>**  
**Type of bond? Name?**

10

**CO<sub>3</sub>**  
**Type of bond? Name?**

11

**How many valence electrons does Sulfur have?**

12

**What charge will sulfur have when it forms and ion? What will its name be?**

13

**What are the names for the common ions SO<sub>4</sub><sup>2-</sup> and SO<sub>3</sub><sup>2-</sup>**

14

**Cs<sub>2</sub>S**  
**Type of bond? Name?**

15

**How many valence electrons does Radium have?**

16

**What charge will Radium have when it forms and ion? What will its name be?**

17

**CoF<sub>3</sub>**  
**Type of bond? Name?**

18

**NO<sub>2</sub>**  
**Type of bond? Name?**

19

**How many valence electrons does Nitrogen have?**

20

**What charge will Nitrogen have when it forms and ion? What will its name be?**

21

**MgCl<sub>2</sub>**  
**Type of bond? Name?**

22

**Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>**  
**Type of bond? Name?**

23

**AgNO<sub>3</sub>**  
**Type of bond? Name?**

24



Type of bond? Name?

25



Type of bond? Name?

26



Type of bond? Name?

27



Type of bond? Name?

28



Type of bond? Name?

29

How many valence  
electrons does  
Phosphorous have?

30

What charge will  
Phosphorous have when it  
forms an ion? What will  
its name be?

31



Type of bond? Name?

32



Type of bond? Name?

33



Type of bond? Name?

34



Type of bond? Name?

35



Type of bond? Name?

36



Type of bond? Name?

37



Type of bond? Name?

38



Type of bond? Name?

39



Type of bond? Name?

40



Type of bond? Name?

41



Type of bond? Name?

42

How many valence  
electrons does  
Rubidium have?

43

What charge will Rubidium  
have when it forms an  
ion? What will its name be?

44



Type of bond? Name?

45



Type of bond? Name?

46



Type of bond? Name?

47



Type of bond? Name?

48



Type of bond? Name?

49



Type of bond? Name?

50



Type of bond? Name?

51



Type of bond? Name?

52



Type of bond? Name?

53



Type of bond? Name?

54



Type of bond? Name?

55

**White Board Practice**  
**Types of Bonds and**  
**Nomenclature**

Write down your answer on the white board and hold it up when you think that you have the answer!

1

**How many valence electrons does Oxygen have?**

6 valence electrons

2

**What charge will oxygen have when it forms an ion? What will its name be?**

2-  
Oxide

3

**CCl<sub>4</sub>**

**Type of bond? Name?**

Covalent,  
Carbon tetrachloride

4

**Mg(OH)<sub>2</sub>**

**Type of bond? Name?**

Ionic,  
Magnesium hydroxide

5

**NaCl**

**Type of bond? Name?**

Ionic,  
Sodium chloride

6

**NaF**

**Type of bond? Name?**

Ionic,  
sodium fluoride

7

**Ba(NO<sub>3</sub>)<sub>2</sub>**

**Type of bond? Name?**

Ionic,  
Barium nitrate

8

**Li<sub>2</sub>SO<sub>4</sub>**

**Type of bond? Name?**

Ionic,  
Lithium sulfate

9

**S<sub>2</sub>F<sub>4</sub>**

**Type of bond? Name?**

Covalent,  
Disulfur tetrafluoride

10

**CO<sub>3</sub>**

**Type of bond? Name?**

Covalent,  
Carbon trioxide

11

**How many valence electrons does Sulfur have?**

6 valence electrons

12

**What charge will sulfur have when it forms and ion? What will its name be?**

2-  
sulfide

13

**What are the names for the common ions SO<sub>4</sub><sup>2-</sup> and SO<sub>3</sub><sup>2-</sup>**

Sulfate and Sulfite

14

**Cs<sub>2</sub>S**

**Type of bond? Name?**

Ionic,  
Cesium Sulfide

15

**How many valence electrons does Radium have?**

2 valence electrons

16

**What charge will Radium have when it forms and ion? What will its name be?**

2+  
Radium

17

**CoF<sub>3</sub>**

**Type of bond? Name?**

Ionic,  
Cobalt (III) Fluoride

18

**NO<sub>2</sub>**

**Type of bond? Name?**

Covalent,  
Nitrogen dioxide

19

**How many valence electrons does Nitrogen have?**

5 valence electrons

20

**What charge will Nitrogen have when it forms and ion? What will its name be?**

3-  
Nitride

21

**MgCl<sub>2</sub>**

**Type of bond? Name?**

Ionic,  
Magnesium chloride

22

**Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>**

**Type of bond? Name?**

Ionic,  
Aluminum sulfate

23

**AgNO<sub>3</sub>**

**Type of bond? Name?**

Ionic,  
Silver nitrate

24



Type of bond? Name?

Ionic,  
Rubidium nitride

25



Type of bond? Name?

Covalent,  
Trihydrogen monophosphide

26



Type of bond? Name?

Covalent,  
Dihydrogen monoxide

27



Type of bond? Name?

Covalent,  
Sulfur hexafluoride

28



Type of bond? Name?

Ionic,  
Sodium nitride

29

How many valence  
electrons does  
Phosphorous have?

5 valence electrons

30

What charge will  
Phosphorous have when it  
forms and ion? What will  
its name be?

3-  
Phosphide

31



Type of bond? Name?

Covalent,  
Nitrogen pentoxide

32



Type of bond? Name?

Covalent,  
Carbon monoxide

33



Type of bond? Name?

Covalent,  
Nitrogen tribromide

34



Type of bond? Name?

Covalent,  
dinitrogen heptachloride

35



Type of bond? Name?

Covalent,  
Sulfur hexafluoride

36



Type of bond? Name?

Covalent,  
Tetraphosphorous decoxide

37



Type of bond? Name?

Ionic,  
Sodium iodide

38



Type of bond? Name?

Covalent,  
Boron mononitride

39



Type of bond? Name?

Ionic,  
Ammonium fluoride

40



Type of bond? Name?

Ionic,  
Aluminum hydroxide

41



Type of bond? Name?

Covalent,  
Silicon dioxide

42

How many valence  
electrons does  
Rubidium have?

1 valence electron

43

What charge will Rubidium  
have when it forms and  
ion? What will its name be?

Rubidium, 1+

44



Type of bond? Name?

Ionic,  
Magnesium carbonate

45



Type of bond? Name?

Covalent,  
Tetrarsenic decoxide

46



Type of bond? Name?

Ionic,  
Lithium nitrate

47



Type of bond? Name?

Covalent,  
Hydrogen monochloride

48



Type of bond? Name?

Covalent,  
Dinitrogen pentasulfide

49



Type of bond? Name?

Covalent,  
Iodine dichloride

50



Type of bond? Name?

Ionic,  
Iron (III) Chloride

51



Type of bond? Name?

Ionic,  
Sodium carbonate

52



Type of bond? Name?

Ionic,  
Calcium sulfate

53



Type of bond? Name?

Ionic,  
Iron (III) Oxide

54



Type of bond? Name?

Ionic,  
Cobalt (II) nitride

55