

Unit 3

Modeling Atomic Structure

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PACS

January 24, 2025

Atomic Number

The _____ is the number of _____ in the nucleus of an atom.

Atomic Number

The **atomic number** is the number of in the nucleus of an atom.

Atomic Number

The **atomic number** is the number of **protons** in the nucleus of an atom.

Atomic Mass

The _____ the total number of _____ and _____ in the nucleus of an atom.

Atomic Mass

The **mass number** is the total number of **protons** and **neutrons** in the nucleus of an atom.

Atomic Mass

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Atomic Mass

The **mass number** the total number of **protons** and **neutrons** in the nucleus of an atom.

Hydrogen



Hydrogen



What does the 1 mean?

Hydrogen



What does the 1 mean?

1 is the total number of neutrons and protons.

Helium



Helium



What does the 4 mean?

Helium



What does the 4 mean?

4 is the total number of neutrons and protons.

Helium



What does the 4 mean?

4 is the total number of neutrons and protons.

What does the 2 mean?

Helium



What does the 4 mean?

4 is the total number of neutrons and protons.

What does the 2 mean?

2 is the number of protons.

Lithium



Lithium



How many protons does Lithium have?

Lithium



How many protons does Lithium have?

3

Lithium



How many protons does Lithium have?

3

How many neutrons?

Lithium



How many protons does Lithium have?

3

How many neutrons?

$$7 - 3 =$$

Lithium



How many protons does Lithium have?

3

How many neutrons?

$$7 - 3 = 4$$

The Great Dane

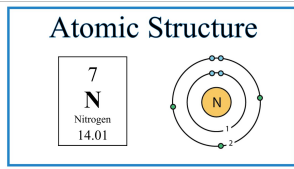


The Bohr Model - Bohr proposed that an atom was a nucleus with electrons "orbiting" in different

The Great Dane



The Bohr Model - Bohr proposed that an atom was a nucleus with electrons "orbiting" in different energy levels.



Energy Levels

The electrons closest to the nucleus have the _____ energy, while those further from away have _____ energy.

Energy Levels

The electrons closest to the nucleus have the **lowest** energy, while those further from away have _____ energy.

Energy Levels

The electrons closest to the nucleus have the **lowest** energy, while those further from away have **higher** energy.