

Bohr Models

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Bohr diagrams show us how many electrons appear in each shell/energy level/orbital

- each shell holds a maximum # of electrons

1st: 2 2nd: 8 3rd: 8 4th: 18

ex. #1 Sodium ~~Atom~~

| P ⁺ | N ⁰ | E ⁻ |
|----------------|-----------------------|----------------|
| = atomic # | = atomic mass rounded | = atomic # |
| = 11 | = 23 | = 11 |
| | = mass # - P | |
| | = 23 - 11 | |
| | = 12 | |

← 1 valence electron

ex. Sodium **ION**

| P ⁺ | N ⁰ | e ⁻ |
|----------------|----------------|---------------------|
| = 11 | = 12 | = atomic # - charge |
| | | = 11 - (+1) |
| | | = 11 - 1 |
| | | = 10 |

← 8 v.e⁻

Valence Electrons

- electrons found in the outermost shell

ex. sodium atom = 1 valence e⁻

ex. sodium ion = 8 valence e⁻