

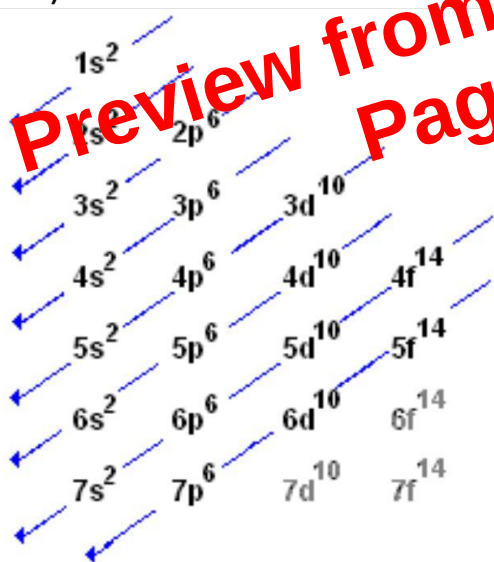
the same orbital, they have to have opposite spins—kind of like two dancers in the same spot spinning in opposite directions.

- **Hund's Rule:** If an orbital has multiple spaces (like the three p-orbitals), electrons will spread out and sit in separate spaces first before doubling up. It's like people filling up a row of seats one by one before sitting next to someone. Soooo, we can take electrons as avoid sharing orbitals like strangers avoiding the middle seat on a bus

### Writing Electron Configurations:

We use a shorthand way to write down the electron configuration. For example:

- **Hydrogen (H)** has 1 electron, so its configuration is  $1s^1$ .
- **Oxygen (O)** has 8 electrons, so its configuration is  $1s^2 2s^2 2p^4$  (this means 2 electrons in the 1s orbital, 2 in the 2s orbital, and 4 in the 2p orbital).



### Bigger Atoms:

For bigger atoms like **Iron (Fe)**, things get a little more complicated, but it still follows the same basic rules. For example, **Iron (Fe)** has 26