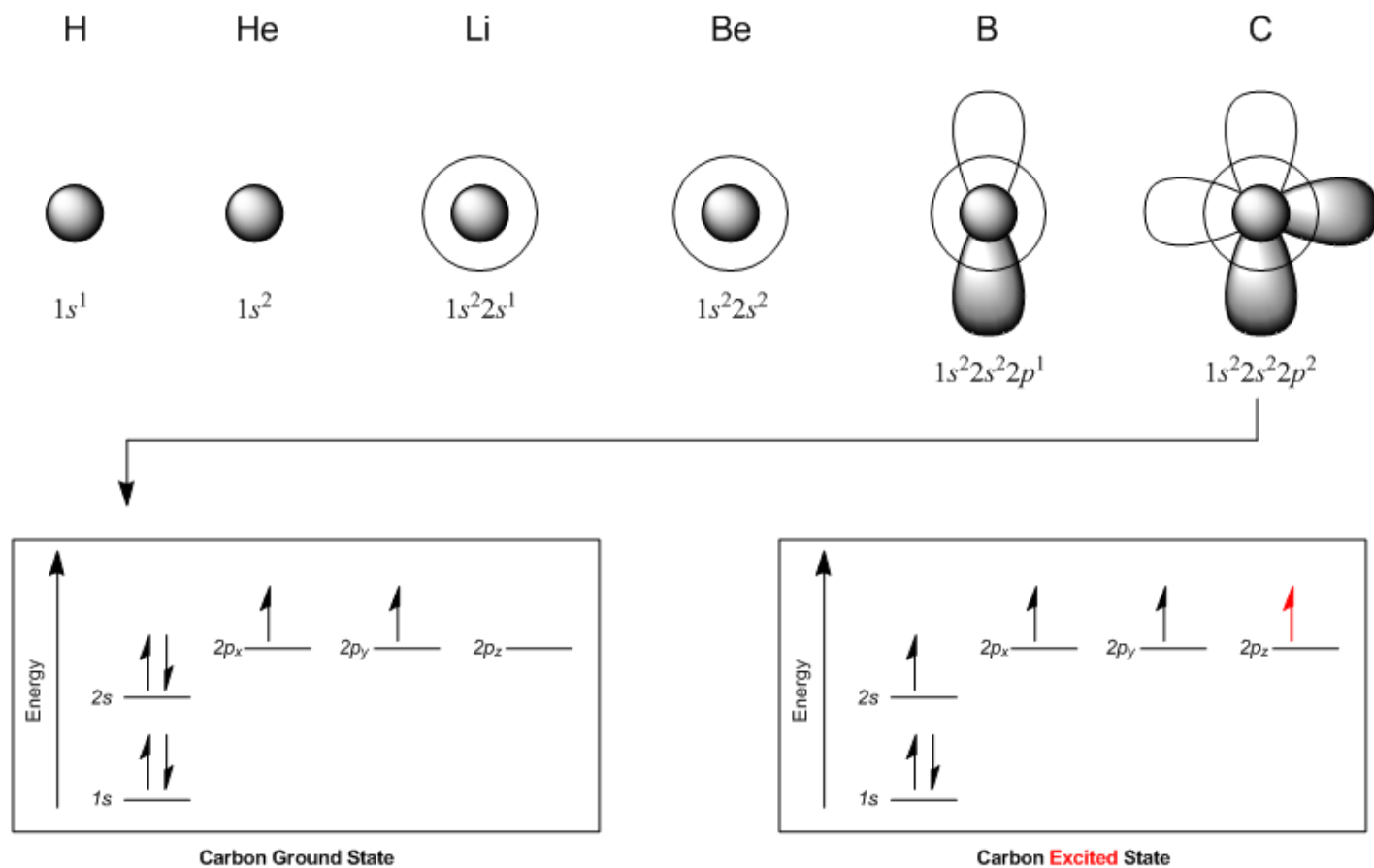


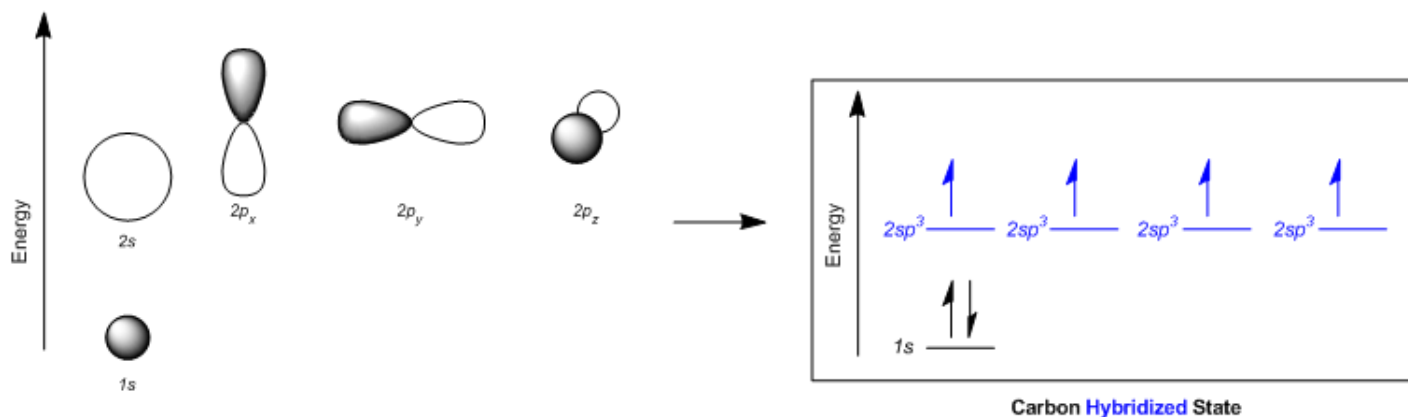
CONCEPT: HYBRIDIZATION

The **Aufbau Principle** states that electrons fill orbitals in order of increasing energy. If carbon has only two unfilled orbitals, why does it like to make 4 bonds?

EXAMPLE: Carbon sp^3 Hybridization



- Many atoms prefer to blend some of their 2nd shell orbitals together to make new _____ orbitals



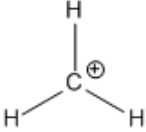
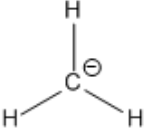
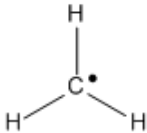
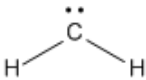
CONCEPT: HYBRIDIZATION SUMMARY

Hybridization can be predicted by the determine the number of _____ on an atom

□ Where a bond site is equal to any _____ or _____

Hybridization Summary						
Bond Sites	Participating Orbitals	Hybrid Orbitals	Unhybridized Orbitals	Hybridization	Bond Angle	% S-Character

EXAMPLE: Predict the hybridization of the following reactive intermediates

 <p>Name:</p> <p>Bond Sites:</p> <p>Hybridization:</p> <p>Intermediate Orbital:</p>	 <p>Name:</p> <p>Bond Sites:</p> <p>Hybridization:</p> <p>Intermediate Orbital:</p>
 <p>Name:</p> <p>Bond Sites:</p> <p>Hybridization:</p> <p>Intermediate Orbital:</p>	 <p>Name:</p> <p>Bond Sites:</p> <p>Hybridization:</p> <p>Intermediate Orbital:</p>