

	<b>C<sub>3</sub></b>	<b>C<sub>4</sub></b>	<b>CAM</b>
How CO <sub>2</sub> gets introduced to Rubisco	'Randomly' (cells'open' to ATM via stomata)	Delivered on "shuttle" molecule (4C, thus C <sub>4</sub> )	Delivered on "shuttle" molecule
How Rubisco isolated from O <sub>2</sub>	Not! (Picture 1)	Spatial separation (Picture 2)	Time separation (Picture 3)
Plants that do this	MOST! ~ 90%	Few: 3% Ex: Many grasses: Corn, sugar cane	Few: 7% Ex: Succulents (Cacti, Crassulaceae), orchids, pineapple
Stomata	No strict day/night pattern	No strict day/night pattern	Day = closed Night = open
When it evolved	1 <sup>st</sup> (before C <sub>4</sub> and CAM)	After C <sub>3</sub> , independently of CAM	After C <sub>3</sub> , independently of C <sub>4</sub>
Especially well suited for:	Generalist, lower temps (<25°C)	Hot (>30°C); high light; low [CO <sub>2</sub> ]; dry periods; (tropics)	Hot and dry (stomata closed during day)