

## Using Chem Boxes for Chemical Notation (Tutorial A9)

[http://www.atomiclearning.com/k12/en/movie/92852/play\\_window?type=Tutorial&sid=2421](http://www.atomiclearning.com/k12/en/movie/92852/play_window?type=Tutorial&sid=2421)

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Chem Box allows you to input chemical formulas and equations into a Notes or Question application. Chem Boxes use a

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simple set of rules to adjust the formatting of subscripts and superscripts more easily. In the Notes application,

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I'll go up to Document Tools, Insert, and choose Chem Box. I'd like to enter the standard formula for calcium carbonate.

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I'll type C and then A for calcium, and you'll see the C is uppercase and the a lowercase, so that looks good.

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If I type C and then O, though, you'll see that by default the C is capitalized, and the o is lowercase, which is

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the symbol for cobalt, not the C for carbon and the O for oxygen. Chem Box doesn't know that I want the capital

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O for oxygen unless I format it correctly myself, so I'll press the delete or backspace key to get rid of that lowercase

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o, and then press Shift and then O so that the formula looks correct again. Now I can type the number 3, and you'll

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see it's automatically formatted as a subscript. Let's say I want to show the decomposition of Calcium Carbonate

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into calcium oxide and carbon dioxide. You can press the equals key to create the yield symbol in a Chem Box, so

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I'll press that first. Next, I'll type C, A, O. That looks great. As you'd expect, pressing the plus key will show

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the addition symbol in a Chem Box to separate two reactants or products, so I'll press the plus key next. Now I'll

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type C, and then remember that if you just type O you'll get the symbol for cobalt, which we don't want here, so

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I'll press Shift first, then O for oxygen, and then the number 2. To get out of a Chem Box, press the escape key.

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You can get a superscript in a Chem Box by using the carrot key. I'll press the return or enter key. and then right-click and choose Insert

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Chem Box to place my new Chem Box in Notes. Now I'll type P, then Shift-O, and then 4. Now I'll press that carrot symbol, which on US keyboards is above

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the 6 key, to move into the exponent, and then press 3. With three molecules of phosphate, I need to show I've

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got a negative charge. The best way to show that here is to press the hyphen key after the three. Note that the

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Chem Box will not perform any chemical calculations; it only represents what you type in chemical notation.

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