

Thread NSTA Chemical Bonds

On Oct 25, 2010, at 4:36 PM, Taylor Romero wrote:

> Hi,

>

> In my 9th grade physical science class, I am currently covering the chapter on chemical bonds, including oxidation numbers, naming compounds and writing formulas. I broke the naming and writing of formulas down into sections: binary ionic, compounds with polyatomic ions, naming with hydrates, and finally naming binary covalent compounds. With each section, I gave them a brief lecture with notes then proceeded to do examples. This naming practice has gone on for 3 weeks...I feel like I have beat the concept to death and yet they still do not grasp it. Any suggestions? I've tried everything I can think of...making stories with it, giving them little clues, etc Any help is greatly appreciated.

Response Threads from teachers:

Sounds to me like you are doing all the work and they are watching. Could you get basketball players this age to learn set plays by telling them about it?

A couple of suggestions. First go to the modeling site at Arizona State and look for chemistry modeling and see how they engage students in this stuff.

Second, log on to the nsta chemistry list and ask the same question, because I suspect this is an issue at every grade level it is taught.

joe

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Hopefully, I'm not the only person who questions the developmental appropriateness of this content for 9th grade physical science students. I have to wonder what other more global and relevant content will have to be set aside in order to drill these concepts into students' heads.

That said, I sympathize if this is all due to state standards.

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If anyone has a copy of that foldable, I could use it too.

Joanna

The happiest people don't necessarily have the best of everything, they just make the most of everything that comes their way.

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Joanna Edelman [jojoannapl@yahoo.com]

When I've had groups who really struggled with this, I've found it helpful to have students either write their own instructions for naming, based on their notes, or create their own flow chart for naming.

I've also noticed that sometimes student difficulties in this area are attributable to a lack of repetition and practice on their own part. This is one unit where they really need to just memorize the rules. I've found it quite remarkable to note the difference in student willingness to memorize when the test is looming. My suggestion: tell them the test is the day after tomorrow, assign them a summary activity over naming (writing instructions, making a flow chart), and 10-15 problems for each section of naming. You're giving them the means and motivation to memorize and utilize the rules of naming.

To quote a friend of mine, "sometimes the only way to herd these little kittens is to put a big mean dog at the other end of the room."

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On Mon, Oct 25, 2010 at 7:32 PM, Mary Sande <mesande@comcast.net> wrote:

Hi,

A couple of weeks ago, someone sent out the idea of making a "fold-able" (Dinah Zake) to help with keeping the rules straight. Also, you could try a flow chart. For example, "Is the first element in column 1, 2 or aluminum?" If yes, write down the element name. If no, is the first element in columns 3-12? If yes..... If no.....

Good luck.

Mary

