

# REAL SCIENCE: CHAIN NOTES STRATEGY

## INTRODUCTION

How do teachers check for understanding in their science classes? Or, how about writing good CER statements - how do we check for that? A typical strategy is call and answer. That is, ask the class, and wait for someone to answer. However, call and answer is typically a passive process - students sit and wait until the teacher calls on them. For the student who doesn't want to participate because he or she doesn't understand the concept, they can hide out during call and answer. And, as a teacher, I may not find out that this student is struggling. Is there a simple way teachers can check for understanding that is also engaging for students? Is there a way to probe for understanding while also making the process supportive for students?

I recently tested Chain Notes as a strategy for checking student understanding. What I discovered was that it's not just a great way to review science concepts. Chain Notes is also an excellent way to teach students what strong and weak scientific writing is. This is particularly important when we want students to write good CER statements. What is an example of a weak CER statement or a strong one? Using Chain Notes helps to resolve those questions too. We outline the Chain Notes strategy below. We also offer some tips on how to use it in your classroom. Handouts are available for download at the end of this post.

## WHAT ARE CHAIN NOTES?

In Chain Notes, a large envelope with a question about the class content written on it is passed around. Each student writes a short answer, puts it in the envelope, and passes it on. After, the students and/or the teacher can sort the responses and share them with the class.

Chain Notes is a simple way to gauge student understanding of class content. With just a handful of questions that students answer, teachers can see from student responses the details and gaps in their understanding of course content. Teachers can then address these gaps immediately or in a future lesson.

## CHAIN NOTES AND GOOD CER STATEMENTS

Besides probing students understanding, Chain Notes is a great way to reinforce good CER statements (ie. scientific writing). Because Chain Notes require students to each write an answer to a question, students get to see what good or poor CER statements look like. When I use Chain Notes in my science class, I have students sort responses from strongest response to weakest. By sorting through responses, students can see what elements typically appear in strong scientific writing (and what elements weak writing usually lacks). Students also get an opportunity to learn from others in their grade level by seeing first hand what other students in the class produce.

## FIELD NOTES

- I have 28 students in my class. Students do the activity in groups of 4. Each student in the group gets a different question (there are 4 different questions in total). Each student has 3 minutes to answer their question before passing the envelope along.
- When students finish responding to all the questions, I collect all of the envelopes and group them by question. I give each group 2 or 3 envelopes from the same question set to sort.
- After students sort their responses from strongest to weakest, I have students read out the strongest and the weakest responses. I also ask students to explain their ranking decisions.
- After going through all questions and the strongest/weakest responses, I review with the entire class the elements that make a strong response (or good CER statement).

