



**Teacher Tutorial #20
from Marcia:**

How to How to Avoid Killing a Love for Science in Your Students



How to How Avoid Killing a Love for Science in Your Students Or: How to Decide What and How to Teach without those Dreaded NOTES!

A teacher asked me an important question this week:

I wanted to find out how you make your fact sheets. Do you have your students find the facts online or have them cut and paste them? Trying to create more engaging lessons is a challenge.

What a **GREAT** question! It touches on a topic I've been thinking **A LOT** about lately. And it's not an easy question to answer because it touches on something I

think many middle school science teachers still do all the time! Something that is really hard to give up! And, in my opinion, really important to remove from your bag of teaching tools!

And that is the Dreaded Notes!

Yes, I said **Notes!** I firmly believe that giving notes to middle school students is a guarantee for killing a love of science in this age of student for many reasons, but mostly because it's **BORING!** And there are so many other ways to

teach Science that approach the subject in a more friendly way that keeps your students **ACTIVE**, which research has shown is a better way to learn!

I hope to convince you to **STOP PUTTING PAGES OF NOTES UP FOR YOUR STUDENTS TO COPY!**

This is a complicated question because first you have to decide **WHAT** to teach! I believe in my heart of hearts that most of what is included in **NOTES** is just **NOT** necessary to teach!



Marcia's Science Teaching Ideas was founded by Marcia Krech, a retired Earth Science Teacher from Missouri, who believes passionately in passing on what she knows about good science teaching. I encourage teachers to use the active learning model including team games and foldables which puts the student to work and assigns the teacher the role of facilitator.

Email me with questions!

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If you make your notes by outlining the chapter, that is a guaranteed way to **KILL** a love for science in your students!

These are the guidelines I think you could use when choosing what to teach from a chapter:

(1) What is going to be on a state or district test? Hard to determine if you are a new teacher. Ask around, check your state's website, look at old tests or ask other teachers what they remember. Take lots of notes!

For example: my state's test (Missouri) asked very few questions about Plate Tectonics, but I could always count on a couple Wegener's evidence questions and so taught that quite extensively.

(2) What are the most important points in this chapter. These are sometimes included in a summary page at the end of a chapter.

EVERYTHING NOT MENTIONED IN THAT SUMMARY CAN BE SKIPPED! And I am **NOT** kidding! Textbook writers cram waaaay too much in there, mostly just to fill up a book and you really do **NOT** have to worry about every little thing they cram in those pages! **Distill down to the bare bones and teach those in active ways and forget about the rest!**

(3) Let's be honest here! How much of this stuff is your average student going to remember by the next school year even? NOT MUCH!

I'd bet not even your brightest will remember it all, and certainly your average student won't even remember all that's on that summary page!

So WHY TEACH IT!

Instead, teach the main concepts with many active learning **FUN** activities which means your kids will **ACE** the state and/or district tests and take away from their middle school science years **A LOVE OF SCIENCE** and a desire to take content-heavy high school science courses, like Biology, Chemistry, or Physics.

I firmly believe that is the main job of a middle school science teacher!

Draw your students into the wonderful world of science! Help them learn the basics and take some of that knowledge with them into their high school years and beyond.

There is **A LOT** to be said for just having **FUN** while learning! Don't feel apologetic about that! Do you want your students to love science? Take that love with them into the adult world? Take more classes in high school? Then make your classes **FUN** with **NO NOTE TAKING**, just lots of fun active learning moments in a room that loves science.

Which brings us to the second part of this Tutorial: **HOW TO TEACH WITHOUT NOTES!**

Basically, here's what you do:

(1) Decide **WHAT** you're going to teach, using the chapter summary as a guide.

(2) Write some good, simple **objectives**, using your book's objectives as a guide.

(3) If you have four objectives worth teaching, then you have four basic things to provide **INPUT** for, **NOT using Notes!** The basic way is to either introduce using a PowerPoint

with a Cut & Paste FollowSheet or a Foldable using some sort of projected guide for them to use during the construction of the Foldable, followed by a set of questions they can work on with a partner or small group. **Lots more fun than Notes!**

(4) Now **enhance** the learning of each objective by doing several other fun activities. Team Games, Pairs Worksheets, model building, lab, cut & paste vocab, you name it. My website is **FULL** of lots of wonderful activities for each of the basic units in Earth Science. Start by checking out this page: **How To Write a Good Science Lesson**. (Also check out [Teacher Tutorial #12](#).)

(5) **Review and give the test.** Even this part can be active and fun and crammed full of good solid learning! For instance, you can do a Team Game Test Review using hand-held White Boards!

Each day you teach should be **CRAMMED FULL** of activities! You should be moving from one to the next without giving them a chance to get bored, restless, and stop learning.

BTW: Transitioning from one activity to another is easy if you use my Timer Approach. ([Check out Tutorial #19](#).)

This whole active way of teaching is **NOT** hard to do! It is essential that you throw out **NOTE-TAKING** as a way to input middle school science materials. Look over my website for tons of great ideas that really work! And have fun teaching!

Please consider never giving NOTES again!