

How to Keep a Scientific Journal

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Does your child hate writing? Or reading? Or documentation of any kind? And let me guess... you probably need something of this sort to hand in as proof that you're homeschooling, right?

Here's a quick and easy way to handle the documentation issue minimal fuss and hassle. And this method will even score you points toward your science curriculum requirements along with setting up a life-long habit, which will serve your child even greater in the future, which is really what we're after. There are three simple steps to this process: Grab, Title, and Record:



Step 1: Grab a notebook. You don't need a fancy quad-ruled, glossy bound, gold-letter-embossed notebook, either. Just find a regular spiral-bound notebook from the store and scribble your child's name across the top. (You can even staple ten blank pages together and call it a notebook if you really want to.)

Step 2: Title the top of a fresh page with the name of the lesson or experiment. For example, from Unit 1, you'd write: *Gravity*.

Easy so far, right? Add the date and time to the top corner and number your pages (in case you need to reference them later on. Trust me – it's a lot easier to number as you go).

Step 3: Record by describing what you're doing. If you're reading about gravity, jot down a few notes about what you picked up. This is where you want to capture your **Ah-HA!** moments. If getting your child to write is harder than changing a car transmission in a snowstorm, then grab a video camera and record them as they work and talk their way through the experiment. Just have them describe what they are doing as they do it (you can probe them along with questions if they get stuck for words). For shy kids, don't have them look at the camera – in fact, if you focus the camera only on their hands as they work through an experiment, their shyness usually will vanish.

A lot of scientists and engineers carry around a voice recorder, so when they have a GREAT IDEA, they can quickly capture it with words by hitting the 'record' button (even while driving!). This allows them to quickly capture and talk about the idea without fussing with the slowness of a pencil and paper. They later play it back and jot down notes and expand it when they have more time.

If you love to write and draw, simply write down the experiment or reading bullet points and illustrate with pictures, describing it with real words that make sense to you. Don't worry about it not being 'formal' or 'correct' – this is *your* journal, not for anyone else.

For example, if you're launching the potato cannon (which we'll actually be doing later on), and you finally figured out how it worked, we'd rather see you write *"I shoved the stick in, which squashed the air, and POP!"* instead of *"...as the lowermost potato slug was moved in an upward direction, the pressure increased as the volume decreased until the structural integrity of the uppermost potato was breached, at which time the..."* Use words that really speak to you in your own terms. You are not writing a textbook, but rather capturing the essence of the experience you're having as you learn science. Get it?



Also, if you have any questions that pop up along the way (especially ones that require more time to search for the answers), write them down here as well. Highlight or **star** each question so you remember to go back and get them answered when you have more time.

If you're recording your progress on a science experiment, get your picture taken as you are doing the experiment and paste it in the notebook. Add a caption about what you are doing, what you found, etc. Most scientists will also record any data they took for the experiment alongside the picture of their set up so it's all in one place.

An excellent idea many families have reported using is at the end of the unit, the parents will become the student and the kids teach the lesson back to the parent until the parent gets it. This may take a bit of work of the kid's part, but most of the time, you'll find kids are determined and creative at getting their point across because they are so excited and passionate about what they have just learned. (Don't believe us? Try faking ignorance and see what your child comes up with.)

And that's it! Do you think this is something you can do? If so, you've just boosted yourself to the top 10% of the students worldwide that actually take the time to capture and record their work. If you just hear or read something only one time, you will only remember 12% of it after about a week. However, when you capture and record notes about what you're doing, the retention after a week shoots up to over 65%. When you take it one step further and teach it to others, you're now over 85% retention after the first *month*.